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Keywords

east, asia, south, smes, trade, development

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October 2015

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SMES, TRADE AND DEVELOPMENT IN SOUTH-EAST ASIA

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The onset of globalization and increased regional economic integration has presented new challenges as well as opportunities for SMEs in South-east Asia. Despite the many barriers and capacity constraints they face arising from their relatively small size, they remain a vibrant and essential ingredient for the economic growth and employment generation of the region. To survive in an increasingly competitive environment requires a new growth paradigm and business strategy for SMEs that focuses upon knowledge and skill acquisition, technology upgrading, innovation and wealth creation. These are likely to be necessary attributes for SME participation in regional and global production networks, and in particular for the high value adding parts of such networks. The former have become very important in explaining the rapid growth of trade and investment flows in East and South-east Asia, where intra-regional and intra-industry trade now predominate.

In this context this report: conducts an overview of the role and significance of the SME sector in the trade and economic development of South-east Asia; provides context for this and subsequent discussion relating to the development of production/distribution networks in East Asia; briefly discusses the potential opportunities and challenges facing SMEs from participation in production networks; and highlights key areas for capacity building of SMEs in South-east Asia if they are to achieve their full potential from this participation.

JEL Classification: F14, L15

Keywords: SMEs, South-east Asia, economic integration, production networks, capacity constraints

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Introduction

Small and medium-sized enterprises (SMEs) play a pivotal role in both developed and developing economies in terms of employment generation, output growth, export growth, poverty alleviation, economic empowerment and the wider distribution of wealth¹ (Harvie, 2002, 2008; Harvie and Lee, 2002, 2005; and Asasen et al., 2003). For many SMEs, however, their potential is often not fully realized due to a number of factors relating to the small scale of their businesses: a **lack of resources** (finance, technology, skilled labour, market access and market information); a **lack of economies of scale and scope**; **higher transaction costs** relative to large enterprises; a **lack of networks** that can contribute to a lack of information, know-how and experience of domestic and international markets; increased **market competition and concentration** from large multinational enterprises from globalization and economic integration; an inability to compete against larger firms in terms of **R&D expenditure and innovation** (product, process and organization) which are critical for competitiveness; they are subject to considerable **'churning' and instability**; and they lack entrepreneurial zeal, capacity and know-how. In addition, many small businesses find that their geographical isolation puts them at a competitive disadvantage. Despite these substantial obstacles the South-east Asian region remains heavily dependent upon SMEs, particularly for employment generation.

The onset of globalization and expanded regional economic integration in the context of South-east Asia² has further intensified the competitive pressures on SMEs in both domestic and international markets. Despite their perceived weaknesses the region retains a dynamic, entrepreneurial and increasingly internationalized SME sector (APEC, 1998; Asasen et al., 2003). SMEs have not been swept away with the process of globalization and regional integration, but, rather, their role and contribution has evolved enabling many to remain internationally competitive. The process of globalization has presented many new challenges (increased competition, rapidly changing market demand, technological change, importance of knowledge, innovation and creativity), but it has also presented new market opportunities for those enterprises most able to respond flexibly and adaptively to rapidly changing regional and global demand (OECD, 1997). A critical issue is how best to ensure that they fully participate in the business and value creation opportunities that will present themselves, including participation in global and regional value chains or production networks (APEC, 2002; Asasen et al., 2003). In this context the future growth and development of SMEs in East and South-east Asia should be viewed within the prism of a global and regional (i.e. ASEAN), and not national, context, as well as the development of relevant SME policy measures.

Globalization and regional economic integration have exerted positive aspects on SME development. Factors encouraging the growth of SMEs include: the rise of **niche markets** and the importance of **customization**; technological advances that have resulted in **discontinuities in production, product fragmentation** and the rise of **production networks**; reduced **product life cycles** that have made flexible production more important than volume of production; **subcontracting** opportunities arising from the growth of the **global production system** (production networks that are particularly strong in the context of East and South-east Asia); opportunities arising from **global retail sourcing** (the so-called 'putting out' system); increased importance of the services sector (dominated by SMEs) due to rising affluence in developing and post-industrial societies, as well as in low income developing economies; the importance of **knowledge, skills and innovation** as core sources of competitiveness and value adding in the **new economy** and not just volume of production; their **reduced bureaucracy**, greater **flexibility** and ability to respond to rapidly changing customer demands and technology; their **innovation** capacity and ability to initiate and **commercialize innovation** (Acs and Audretsch, 1990; OECD, 2000a), particularly in knowledge and skill intensive sectors where **entry costs are lower**; advances in **information and communications technology** and the utilization of **e-commerce** to expand market outreach and facilitate

¹ See Davis, Haltiwanger and Schuh (1993) and Hallberg (2000) for a useful critique on the contribution of SMEs in these areas.

² As exemplified by the establishment of the ASEAN Economic Community (AEC) by the end of 2015, which has the capacity to transform ASEAN into a region with free flow of goods, services, skilled labour, investment and capital. The AEC has a market of over 625 million consumers and a combined gross domestic product of nearly US\$2.5 trillion at current prices.

access to information (OECD, 2000c); participation in **clustering** (horizontal and vertical) and **networking**³ that can facilitate access to knowledge sharing spillovers and skilled labour (Porter, 1990; Porter, 1998; OECD, 2000b) as well as achieve economies of scale and scope which would be impossible in isolation; **flexibility** in technology development, adaptation and application; and, finally, recognition by **policy makers** of the important role that they can play in economic development, particularly employment generation, empowerment and poverty alleviation by policy makers both at the national level and international regional levels (APEC, ASEAN, Asian Development Bank etc.).

The remainder of this report proceeds as follows. Section 1 conducts an economic review of the South-east Asian region. Section 2 reviews the role, significance and contribution of the SME sector to the region. Section 3 identifies the contribution of SMEs to new millennium development goals. Section 4 identifies key SME bottlenecks and capacity constraints facing regional SMEs. The important contribution of SMEs to regional production networks and value chains is discussed in section 5. Section 6 discusses SME policies and internationalisation. Business support institutions and mechanisms for SMEs are discussed in section 7. Section 8 provides a summary of the major conclusions from this report.

1. Economic overview of the South-east Asian region⁴

1.1. Economic integration initiatives

The economies of South-east Asia are amongst the most dynamic and rapidly growing in the global economy⁵. Over the past two to three decades major achievements have occurred that have resulted in closer regional integration, as well as with the global economy more generally. At the core of this development has been the establishment and growth of the Association of South East Asian Nations (ASEAN). ASEAN was established on 8 August 1967 with the signing of the ASEAN Declaration (or Bangkok Declaration) by its five original members (Indonesia, Malaysia, Philippines, Singapore and Thailand) which subsequently expanded to include Brunei Darussalam in January 1984, Vietnam in July 1995, Lao PDR and Myanmar in June 1997 and Cambodia in 1999. A key aim of ASEAN is to establish a free trade area among member nations. To this end the ASEAN Free Trade Agreement (AFTA) was signed in January 1992 aimed at eliminating all tariff and non-tariff barriers among ASEAN members, and making the region a more attractive production base for foreign direct investment. Initially, this agreement applied only to the ASEAN6⁶ countries but as membership expanded during the 1990s new members were required to sign the AFTA agreement, but were given longer time frames to meet tariff reduction obligations.

On the 30th Anniversary of ASEAN in 1997 ASEAN Leaders agreed upon a shared vision of ASEAN as a group of South-east Asian nations that would be outward looking, market driven, stable, prosperous and a highly competitive region with equitable economic development, reduced poverty and socio-economic disparities (ASEAN Vision, 2020). At the 9th ASEAN Summit⁷ in October 2003 the ASEAN Leaders resolved that establishing an ASEAN Economic Community (AEC) would be the goal of regional economic integration (Bali Concord II) by 2020. In addition to the AEC the ASEAN Political Security Community (APSC) and the ASEAN Socio-Cultural Community (ASCC) were the other two integral pillars of the envisaged ASEAN Community. All the three pillars were to work in tandem in establishing the ASEAN Community in 2020 (ASEAN, 2008).

³ A network, as defined here, is a group of firms that cooperate on joint project development complementing each other and specializing in order to overcome common problems, achieve collective efficiency and penetrate markets beyond their individual reach. Whether horizontal or vertical, networks can be developed within, or independently of, clusters.

⁴ The term South-east Asia region and ASEAN are used interchangeably throughout the remainder of this report.

⁵ The Asian financial and economic crisis (AFC) of 1997-98, however, did represent a major setback to countries in the region, some of which were the most adversely affected (e.g. Indonesia and Thailand). This resulted in a re-appraisal of their economic development model, with more emphasis subsequently placed on the role and contribution of the SME sector (Asasen et al., 2003), involving closer collaboration among domestic and regional stakeholders within ASEAN. This need for more collective action was exemplified in the Blueprint for the ASEAN SME Development Decade 2002-2012 (Asasen et al., 2003).

⁶ The ASEAN6 consists of Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore and Thailand.

⁷ Also known as the Bali Summit.

At the 12th ASEAN Summit in January 2007 ASEAN leaders re-affirmed their strong commitment to regional economic integration, and, in addition, agreed to accelerate the establishment of an ASEAN Community by signing the Cebu Declaration on Acceleration of the Establishment of an ASEAN Community by 2015 which would enable the free movement of goods, services, investment, skilled labour and capital across the region.

Each of the three ASEAN Community pillars has its own Blueprint and, together with the Initiative for ASEAN Integration (IAI) Strategic Framework and IAI Work Plan II (2009-2015), they formed the Roadmap for an ASEAN Community 2009-2015. At the 14th ASEAN Summit in February 2009, ASEAN leaders adopted the APSC Blueprint, the ASCC Blueprint and the Initiatives for ASEAN integration (IAI) Work Plan II, 2009-2015. The AEC Blueprint having already been approved at the 13th ASEAN Summit in November 2007. On December 15, 2008 an ASEAN Charter, signed in November 2007⁸, came into force with the aim of moving closer to "an EU-style community". The charter turned ASEAN into a legal entity with the aims of creating a single free-trade area for the region.

Of particular importance is the AEC Blueprint, which envisaged achieving the following for ASEAN: a single market and production base, a highly competitive economic region, a region of equitable economic development, and a region fully integrated into the global economy. The AEC is envisaged to be an open, outward looking, inclusive and market driven economy consistent with the multilateral trading system, and adhering to a rules based system that is compliant with the implementation of economic commitments. Attainment of the AEC aims to deepen and broaden economic integration and facilitate the free movement of goods, services, investment, skilled labour and the free flow of capital, to make ASEAN more dynamic, resource allocation efficient and competitive, accelerate regional integration in priority sectors, strengthen the institutional mechanisms of ASEAN and address the economic and development divide between CMLV (Cambodia, Myanmar, Laos and Vietnam) countries and the ASEAN6. The AEC also aims to encourage cooperation in: human resource development and capacity building, recognition of professional qualifications, facilitate closer consultation on macroeconomic and financial policies and trade facilitation measures, enhance infrastructure and communication connectivity, develop electronic transactions through e-ASEAN, integrate industries across the region to promote regional sourcing and cross border networking and enhance the role of the private sector and in particular SMEs.

1.2. ASEAN economic performance

1.2.1. GDP, trade and foreign direct investment

As indicated in Table 1 in Annex I the ten ASEAN member countries now comprise an important economic bloc not only in East and South-east Asia but also in a global context. In 2013 the population of ASEAN was just over 625 million and it had a GDP of US\$2.4 trillion at current prices or US\$3.9 trillion based on PPP⁹. This represented approximately 3-4% of global GDP. Total merchandise trade amounted to US\$2.5 trillion in 2013, predominantly involving trade with countries outside the region, and net FDI inflows, predominantly from outside the region, amounting to US\$122.4 billion.

Table 2 in Annex I shows how ASEAN GDP, trade, and FDI in 2013 were distributed by member country. The ASEAN6 members - Indonesia (36.0%), Thailand (16.2%), Malaysia (13.0%), Singapore (12.4%), Philippines (11.2%) and Brunei (0.7%) contributed 89.5% of ASEAN GDP in 2013, while CMLV nations contributed only 10.5%¹⁰. GDP per capita is also noticeably lower in the CMLV countries. The ASEAN6 also dominate ASEAN exports (88% of the total), imports (87% of the total) and total ASEAN merchandise trade (88% of the total). The importance of exports and total trade to GDP is particularly apparent for Singapore, Vietnam, Malaysia, Brunei, Thailand and Cambodia, but much less so for Myanmar, Indonesia, Philippines and Lao PDR. Foreign direct investment (FDI) as a proportion of GDP is highest for Singapore, by far, Cambodia, Brunei, Vietnam, Myanmar and Lao PDR, while in absolute terms the major recipients of

⁸ ASEAN Leaders adopted the ASEAN Economic Blueprint at the 13th ASEAN Summit in November 2007 in Singapore to serve as a coherent Master Plan guiding the establishment of the ASEAN Economic Community in 2015.

⁹ Purchasing power parity.

¹⁰ Mostly by Vietnam.

FDI are Singapore, Indonesia, Thailand, Malaysia and Vietnam which together accounted for 93% of all net FDI to ASEAN member countries in 2013.

Table 1. ASEAN Key Economic Indicators, 2010-2014

	2010	2011	2012	2013	2014
Population (million)	600.3	609.1	617.2	625.1	n.a.
GDP (US\$bn), current prices	1,901.6	2,205.2	2,334.5	2,406.5	2,464.6
GDP PPP (Int'l\$bn)	3,142.3	3,354.2	3,610.3	3,852.3	4,104.2
GDP per capita (US\$)	3,164	3,620	3,780	3,845	3,882
GDP per capita PPP (Int'l\$)	5,228	5,506	5,846	6,155	6,465
Real GDP growth (% change yoy)	8.3	5.2	6.3	6.1	5.8
Total international merchandise trade (US\$bn.)	2,009	2,388	2,476	2,511	n.a.
Exports (US\$bn.)	1,051	1,242	1,254	1,271	n.a.
Imports (US\$bn.)	0.957	1,146	1,221	1,240	n.a.
Current account balance (US\$bn.)	109.0	113.6	60.0	55.0	59.1
Current account balance (% of GDP)	5.7	5.2	2.6	2.3	2.4
FDI inflow (US\$bn.)	100.4	97.5	114.2	122.4	---
Inflation (% change yoy)	5.2	6.0	3.9	4.4	5.1

Note: na means not available

Source: ASEAN Statistics, ASEAN Secretariat, Department of Foreign Affairs and Trade, Canberra, Australia.

1.2.2. Intra and extra ASEAN trade flows

Tables 3, 4 and 5 provide more detailed information on intra and extra ASEAN exports, imports and total trade for 2013. About a quarter of ASEAN's total trade (as well as exports and imports) involves trade between member countries while three-quarters of total trade involves trade with non-members. This confirms the need for ASEAN to remain an open and outward oriented trading bloc with the rest of East Asia and the global economy, as it remains heavily reliant on trade with non-member nations (Athukorala and Kohpaiboon, 2009). As shown in Table 6 ASEAN's major trading partners are China, EU, Japan and the USA. Trade, as measured by exports to GDP and total trade to GDP (see Table 2 in Annex I), is particularly important for the economies of Singapore, Vietnam, Malaysia, Thailand, Cambodia and Brunei, with extra-ASEAN trade dominating (see Table 5). Trade is noticeably less important for Indonesia, Myanmar, Lao PDR and the Philippines, with extra-ASEAN trade dominant for Indonesia and the Philippines, marginally so for Myanmar and intra-ASEAN trade dominant for Lao PDR (particularly two way trade with Thailand). The ASEAN6 economies dominate overall ASEAN international trade, contributing 88% of the total, while the CMLV group contributes only 12% of total trade. The economic development divergence between the ASEAN6 and the CMLV countries is, therefore, quite stark and a major challenge and of high priority for regional leaders and policy makers if the ASEAN Economic Community is to be successful.

Table 3. Intra and Extra ASEAN Export Trade 2013, US\$ billion, percent

Country	Intra ASEAN exports		Extra ASEAN exports		Total exports US\$
	Value US\$	Share to total exports %	Value US\$	Share to total exports %	
Brunei Dar.	2.6	23.1	8.8	76.9	11.4
Cambodia	1.3	14.2	7.8	85.8	9.1
Indonesia	40.6	22.3	141.9	77.7	182.6
Lao PDR	1.2	47.6	1.4	52.4	2.6
Malaysia	64.0	28.1	164.2	71.9	228.3
Myanmar	5.6	49.2	5.8	50.8	11.4
Philippines	8.6	16.0	45.4	84.0	54.0
Singapore	128.8	31.4	281.5	68.6	410.2
Thailand	59.3	25.9	169.4	74.1	228.7
Vietnam	18.2	13.7	114.5	86.3	132.7
ASEAN	330.3	26.0	940.7	74.0	1,271.0

Source: ASEAN Statistics, ASEAN Secretariat

Table 4. Intra and Extra ASEAN Import Trade 2013, US\$ billion, percent

Country	Intra ASEAN imports		Extra ASEAN imports		Total imports US\$
	Value US\$	Share to total imports %	Value US\$	Share to total imports %	
Brunei Dar.	1.8	51.0	1.8	49.0	3.6
Cambodia	2.8	30.7	6.4	69.3	9.2
Indonesia	54.0	29.0	132.6	71.0	186.6
Lao PDR	2.5	75.8	0.80	24.2	3.3
Malaysia	55.1	26.7	150.9	73.3	206.0
Myanmar	4.2	35.3	7.8	64.7	12.0
Philippines	14.2	21.8	51.0	78.2	65.1
Singapore	77.9	20.9	295.1	79.1	373.0
Thailand	44.3	17.8	205.2	82.2	249.5
Vietnam	21.4	16.2	110.8	83.8	132.1
ASEAN	278.3	22.4	962.2	77.6	1,240.5

Source: ASEAN Statistics, ASEAN Secretariat

Table 5. Intra and Extra ASEAN Total Trade 2013, US\$ billion, percent

Country	Intra ASEAN trade		Extra ASEAN trade		Total trade US\$
	Value US\$	Share to total trade %	Value US\$	Share to total trade %	
Brunei Dar.	4.5	29.8	10.6	70.2	15.1
Cambodia	4.1	22.5	14.2	77.5	18.3
Indonesia	94.7	25.6	274.5	74.4	369.2
Lao PDR	3.7	63.4	2.2	36.6	5.9
Malaysia	119.1	27.4	315.2	72.6	434.3
Myanmar	9.9	42.1	13.6	57.9	23.4
Philippines	22.8	19.1	96.3	80.9	119.1
Singapore	206.7	26.4	576.6	73.6	783.3
Thailand	103.7	21.7	374.6	78.3	478.2
Vietnam	39.5	14.9	225.2	85.1	264.8
ASEAN	608.6	24.2	1,902.9	75.8	2,511.5

Source: ASEAN Statistics, ASEAN Secretariat

Table 6. Top ten ASEAN trade partner countries/region, 2013 (value in US\$ bn., share in percent)

Trade partner country/region	Value			Share of total ASEAN trade		
	Exports	Imports	Total trade	Exports	Imports	Total trade
ASEAN	330.4	278.3	608.6	26.0	22.4	24.2
China	152.5	198.0	350.5	12.0	16.0	14.0
EU-28	124.4	121.8	246.2	9.8	9.8	9.8
Japan	123.0	117.9	240.9	9.7	9.5	9.6
USA	114.5	92.4	206.9	9.0	7.5	8.2
Korea	52.8	82.2	135.0	4.2	6.6	5.4
Taiwan	35.2	66.2	101.5	2.8	5.3	4.0
Hong Kong	82.1	13.1	95.2	6.5	1.1	3.8
Australia	45.5	22.5	68.0	3.6	1.8	2.7
India	41.9	25.9	67.9	3.3	2.1	2.7
Total ¹	1,102.5	1,018.3	2,120.8	86.7	82.1	84.4
Others	168.6	222.1	390.8	13.3	17.9	15.6
Total	1,271.1	1,240.5	2,511.5	100.0	100.0	100.0

Note: 1. Total top ten trading partners

Source: ASEAN Statistics, ASEAN Secretariat

1.2.3. Trade by commodity

As shown in Table 7 about 70% of total ASEAN trade consists of trade in ten commodity groups: (i) electrical machinery and parts, sound recorders, televisions and their parts and accessories, (ii) mineral fuels, mineral oils and related products; bituminous substances; mineral waxes (iii) nuclear reactors, boilers, machinery and mechanical appliances; parts and components (iv) vehicles and their parts and accessories (v) plastics and related articles (vi) optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories. (vii) natural or

cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery (viii) organic chemicals (ix) rubber and articles and (x) iron and steel. For a number of these commodity groups, particularly those involving trade in parts, components and accessories, there is substantial intra industry trade (exports and imports in the same industry category) reflecting the important role that firms in ASEAN play in production networks and value adding chains involving other ASEAN economies and other countries in East Asia more generally (e.g. China, Hong Kong, Japan, Korea and Taiwan).

Table 7. Top ten ASEAN trade commodity groups, 2013 (value in US\$ bn., share in percent)

Commodity group		Value US\$ billion			Share of total ASEAN trade %		
2-digit HS code	Description	Exports	Imports	Total trade	Exports	Imports	Total trade
85	Electrical machinery and parts thereof, sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	277.3	249.3	526.6	21.8	20.1	21.0
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes.	220.0	273.8	493.9	17.3	22.1	19.7
84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof.	138.5	155.8	294.3	10.9	12.6	11.7
87	Vehicles other than railway or tramway rolling-stock, and parts and accessories thereof.	40.4	40.5	80.9	3.2	3.3	3.2
39	Plastics and articles thereof.	39.6	40.6	80.3	3.1	3.3	3.2
90	Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof.	32.8	27.7	60.5	2.6	2.2	2.4
71	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin.	26.3	33.5	59.8	2.1	2.7	2.4
29	Organic chemicals	32.7	26.5	59.2	2.6	2.1	2.4
40	Rubber and articles thereof.	39.9	12.9	52.8	3.1	1.0	2.1
72	Iron and steel	8.4	43.5	51.9	0.7	3.5	2.1
	Top ten commodities	856.0	904.1	1,760.1	67.3	72.9	70.1
Others		415.1	336.3	751.4	32.7	27.1	29.9
Total		1,271.1	1,240.5	2,511.5	100.0	100.0	100.0

Source: ASEAN Statistics, ASEAN Secretariat

1.2.4. Intra and extra ASEAN FDI flows

Another primary objective of ASEAN is to make the region more attractive to inflows of FDI from outside the region, in particular, as a means of: attracting technology transfer, expanding employment, improving business efficiency and productivity, enhancing local firm capacity and involvement in production networks,

build international networks and trade, and build upon local advantages and competitiveness. Tables 8 and 9 in Annex I provide evidence on how ASEAN in general and its individual member economies have performed in this context. Table 8 in Annex I shows that in 2013 the economies of ASEAN received US\$122.4 billion in net FDI inflow, of which 82% was generated from outside the region and 18% was generated from within the region. Almost half of this net inflow went to Singapore alone, 90.6% of which came from outside ASEAN. Other major recipients were Indonesia (57% from outside the region), Thailand (90% from outside the region), Malaysia (82% from outside the region) and Vietnam (77% from outside the region). The magnitude of net FDI flows to Brunei, Cambodia, Lao PDR, Myanmar and the Philippines remained modest by comparison. The major external sources of FDI for the ASEAN economies are the EU, Japan, USA and, increasingly, China (see Table 9 in Annex I).

From this brief overview of the ASEAN economies a number of important observations can be made. The ASEAN economy is now a major global player, with a market of 625 million people and total GDP of US\$2.4 trillion, total international merchandise trade is valued at US\$2.5 trillion and FDI valued at US\$122.4 billion in 2013. Consequently, the region presents many business opportunities. There is, however, a big disparity in economic development between the ASEAN6 and CMLV, presenting a major challenge to regional leaders and policy makers. The successful attainment of a sustainable ASEAN Economic Community fundamentally depends upon achieving broad based and inclusive growth among its members which will require addressing economic development disparities. Trade and FDI flows, particularly involving non-member countries, remain vital to the region's future development. The region must remain open to non-member countries in the rest of East Asia and globally. Much of ASEAN trade is in intra industry commodities, a reflection of the region's involvement in cross border production networks in both East Asia and globally. The need to ensure that the region maintains its competitiveness as a production based is critical. Free flow of goods, services, skilled labour, investment and capital flows will contribute to more efficient resource allocation and the establishment of competitive firms and industries. Closer cooperation in the area of human resource development, capacity building, infrastructure for connectivity, adoption of e-commerce will also play an important part in this process (Asasen et al., 2003).

2. Contribution of SMEs to South-east Asian economic development

2.1. Context and policy shift

The export success of most South-east Asian economies during the period of the 1970s and 1980s was undone by lost competitiveness and associated under-achievement from the early 1990s. The AFC that afflicted the region in 1997-98 brought with it significant setbacks on the trade and investment fronts for many regional economies. It also caused a substantial increase in unemployment and social instability in some ASEAN countries (e.g. Indonesia), and was broadly felt across the region including among newer member economies. The crisis was a culmination of a number of factors: a loss of international competitiveness, increased competition in major markets (e.g. from China), failed structural deepening and diversification, poorly devised, sequenced and implemented policy liberalisation and administrative deregulation in key areas such as trade, investment and financial sectors, a cyclical downturn in global and regional demand for consumer electronics products, components and parts in the mid-1990s, excessive speculation in real estate construction from the early 1990s and problems in capacity building. The crisis also slowed the momentum for further regional economic integration which had been given impetus from the signing of the ASEAN Free Trade Area (AFTA) agreement in 1992. The crisis also undermined the political and economic influence of ASEAN itself.

Although SMEs had been recognized as a policy priority area for many East Asian economies (see Hill, 1995), and more generally within the context of the Asia Pacific Economic Cooperation Forum (APEC) since the 1993 APEC Leaders' meeting in Seattle, a clearly enunciated APEC agenda and program of action for SMEs in the region before the onset of the AFC of 1997-98 remained elusive. The crisis, however, produced a change in attitude by regional leaders and policy makers that resulted in a return to economic fundamentals: a re-evaluation of industrial policies; greater emphasis on improving corporate governance; improving the efficiency and competitiveness of enterprises; and developing more resilient business sectors able to better withstand the vicissitudes of domestic, but more importantly global, market volatility (Hall, 1999; Harvie, 2002). The latter is of particular importance in the context of globalisation and increased regional economic interdependence and integration. The need to develop more adaptable and

flexible economies and business sectors focused more attention on the development of the SME sector which had been neglected for much of the pre-crisis boom period. Domestic policy measures allocated more funding to SME sector development and integration, as too did external development aid. The collaborative promotion of SME sector development and integration has now become a major focus of policy within ASEAN as well as APEC.

In the context of ASEAN the importance of SME development is embedded in the third pillar of the ASEAN Economic Community Blueprint, specifically the issue of achieving equitable economic development. The AEC Blueprint focuses on SME development through the ASEAN Policy Blueprint for SME Development (APBSB) 2004-2014. It was expected that by 2015 ASEAN SMEs would form a major part of regional and global supply chains. The Strategic Action Plan for ASEAN SME Development (SAPASD) 2010-2015, which subsequently replaced the (APBSB), aimed to engage SMEs on issues relating to: access to finance, technology development, human resource development and others, in order to enhance the resilience and competitiveness of SMEs. Post 2015 the AEC needs to define a clear strategy for the involvement of the private sector, and especially SMEs, to achieve inclusive growth in the region.

2.2. Rationale for a Strategic Approach to the Development of SMEs in ASEAN

Adopting a cooperative approach to the development and integration of regional SMEs has the potential to result in increasing social and economic returns within and across ASEAN. A competitive and innovative regional SME sector has the potential to deliver major outcomes for the region in terms of: higher income growth, fuller employment of domestic resources, effective integration through global and regional trade and investment, and greater ASEAN member equity in terms of access to resources, income distribution and economic development. But such strategic and cooperative SME development efforts by ASEAN members is increasingly being challenged by: fiercer regional and global competition, from China in particular, fast-paced technological progress and its equally rapid incorporation in products and production and marketing processes; and more sophisticated, demanding and constantly changing consumer preferences and market requirements. But the new development context also embodies vast opportunities for value creation and capacity building by enterprises regardless of size. The process is mediated through: more gainful participation in trade and investment, easier access to the global store of knowledge and information, and greater integration into denser and deeper nexus of inter-firm linkages and other collaborative arrangements within and across borders. A strategic and cooperative approach to SME development by all ASEAN members is likely to stand a better chance of success.

2.3. SME contribution and performance

A comparison of the performance of SMEs across the economies of the region is difficult for two reasons. First, there is no consistent definition of what constitutes an SME, which can vary significantly across countries, and, second, a general lack of data made available by regional governments and relevant institutions. This data shortage is particularly evident in terms of the sectoral and industrial composition of SMEs; SME inputs and turnover; and the contribution SMEs to income, employment and exports. Information is also lacking regarding the characteristics of domestic clusters and networks involving SMEs; the nature and relative importance of local and external linkages and alliances that SMEs maintain with their suppliers and customers as well as with technology and productivity-enhancing institutions etc. (Asasen et al., 2003). If consistent and coherent policies are to be implemented in regional economies and adequate monitoring of policy measures are to be evaluated, there needs to be a considerable improvement in data accumulation. As a consequence it is necessary to utilise a number of sources in order to put together a mosaic of the contribution of SMEs to regional (ASEAN) economies.

Table 10 in Annex I contains a summary of the contribution of SMEs to business numbers, employment, GDP and exports for various ASEAN member countries where data is available. It is apparent that SMEs provide the backbone of the ASEAN economies and will play an important role in the future economic development and regional economic integration of ASEAN countries.

2.3.1. Business numbers

SMEs generally contribute more than 99% of all enterprises in ASEAN member countries, so on sheer numbers alone they are important. They consist mainly of microenterprises (75%+ of the firm cohort) and to a much lesser extent small enterprises (10-20% of the firm cohort). Medium sized enterprises typically contribute less than 5% of the total firm cohort. Many developing economies in the region have a large number of micro and small, SMEs, many of which are in the informal sector, as well as a dominant (although small in number) large enterprise sector, but they do not have many medium sized enterprises. Hence there is a “missing middle”. This contrasts with more developed economies where medium sized enterprise numbers are larger and their contribution to overall employment is significant, as well as being a major source of high growth innovation oriented firms that contribute importantly to employment growth. Consequently, a general economic development pattern is that at lower levels of economic development average firm size, as measured by employment, is low, increasing with economic development and movement to a factory system with industrialization that contributes to an increase in average firm size.

The numbers presented in Table 10 in Annex I are generally based on formally registered enterprises, but in many low income ASEAN countries informal enterprises, such as household enterprises, are not reflected in enterprise numbers and employment so they are likely to be under-represented.

Many SMEs in ASEAN countries are, by and large, owned and operated by their (founding) entrepreneurs and members of their extended families. Indeed, the entrepreneurs themselves tend to play a crucial role in the success or failure of the SMEs concerned. Such an important influence, while understandable in terms of business development, can be a constraint in terms of future growth potential particularly in terms of accessing finance from banks and venture funding sources.

2.3.2. Employment

SMEs account for between 50 and 95 per cent of employment in many ASEAN member countries (ERIA, 2014), and this contribution tends to be proportionally more from medium sized businesses. Medium sized enterprises typically make up only about 4 percent or less of all enterprises (or about 20 percent of manufacturing enterprises) but they employ about 20 percent of the workforce (or about 30 percent of the manufacturing workforce). SMEs are the largest source of formal- and semi-formal sector employment. While there are a considerable number of micro businesses across the region, between 70-80 percent of all enterprises in the private sector, they do not contribute proportionally as much to overall employment; typically only about 10 to 25 percent. SMEs are especially important for the employment of young persons and women (APEC, 1999). Equally pressing is the creation of adequate employment opportunities for the constantly expanding pool of prospective job seekers (especially the young and female workers), and for potential SME entrepreneurs themselves.

2.3.3. Output

The relative share of SME production in total domestic output is difficult to obtain for ASEAN economies, but is disproportionately smaller than their contribution to business numbers. Table 10 in Annex I suggests that their contribution to GDP varies widely across regional economies, between 23-58 percent (ERIA, 2014), while Asasen et al. (2003) suggest a figure of between 20-40 percent. SMEs have been typically estimated to contribute somewhere between 30 percent and 60 percent of GDP across East Asia more generally (Hall, 1995). Hall (2002a) shows that SMEs contribute about 50 percent of value added or sales on average across the region, but that this ranges from about 30 percent to about 70 percent. Small and micro firms make a significant contribution in developing economies (about 50 percent of output in China and the Philippines for example), but less in the more developed economies.

Again, the non-inclusion of informal enterprises in this data is likely to significantly underestimate the contribution of SMEs (formal and informal) to employment and GDP in particular.

2.3.4. Exports

There is very little information on the contribution of regional SMEs to the export and import of goods and services as few countries keep such data. Hence reliable estimates of the proportion of exports generated by SMEs are traditionally difficult to obtain (Hall, 2002a). Table 10 in Annex I suggests that the contribution

of SMEs to exports is between 19-31 percent while Asasen et al. (2003) suggests that the figure is between 10-30% of total exports and the direct contribution of SMEs to merchandise export earnings is likewise small, typically some 15-25 per cent for the ASEAN economies. This relatively poor performance is a reflection of the fact that (i) SMEs generally cater largely for local markets (ii) are subject to non-tariff barriers (product standards, process standards, certification, registration and testing procedures, packaging and labelling, environmental and labour standards, logistics, customs administration and bureaucracy) which all add considerably to the cost of exporting for SMEs (iii) SMEs tend to export a narrow range of low value adding exports (e.g. food products, textiles and garments, leather goods, furniture items and handicrafts). These tend to be quite important in the exports of Indonesia, Philippines and Vietnam for example.

Earlier figures by Hall (1995, 2000b) suggest that for the East Asian countries, as a whole, SMEs generally contribute between 30-35 percent of direct exports. However, this does vary widely across countries. Export growth rates are generally higher than GDP growth rates, and, where figures are available, the rate of growth of SME exports is higher than the growth of overall exports. This suggests that SMEs in Asia have already become significantly internationalized and becoming more so, but issues such as cost, product quality, delivery on time and packaging remain a hindrance for many ASEAN SMEs.

In addition, many SMEs are indirect exporters: as suppliers to larger domestic firm exporters, to cross-border supply chains arising from their participation in production networks, or through an agent which makes it difficult to attribute the exports to SMEs even when statistics are kept. If we were to add direct and indirect exports by SMEs their contribution to regional exports could rise to close to 50 percent for East and South-East Asian countries. In addition, SME foreign direct investment (FDI) is usually export oriented, thereby adding further to the potential for regional exports and technology transfer (Hall, 2000, p.2). Such SMEs typically rely on labour-intensive and/or simple technologies, including that used in processing and manufacturing activities.

2.3.5. Contribution of SMEs to Growth

SMEs make a major contribution to economic and, particularly, employment growth. Most of the available evidence suggests that SMEs contribute about 60 to 70 percent of net employment growth, so they are an important “Entrepreneurial Engine”. This contribution has two main aspects. First, the net addition of new firms, net start-ups, generates economic growth. About 80 to 90 percent of SMEs are micro enterprises, and they “churn”; that is a significant proportion (between about 5 to 20 percent) “die” each year, while a similar proportion are “born” each year. If there is a net gain of births over deaths then this tends to add to overall economic growth, even though the average micro firm itself does not grow much in size. Second, it is the sustained growth of a relatively small group of successful (or high growth) firms that contributes significantly to economic growth. These firms typically survive for more than eight years, and often experience growth rates exceeding 30 percent per annum. It is only a relatively small percentage of SMEs (perhaps 5 percent or less) that contribute significantly to overall growth in this way, but their contribution can be quite large (see Hall, 2002a). But most SMEs are far from modern, dynamic and inter-linked in their operations. Consequently, SMEs’ contribution to output and exports is much lower than their relative importance, in terms of business numbers, in the economy.

A vibrant SME sector is critical in supporting closer regional integration through the establishment of the ASEAN Community, particularly the ASEAN Economic Community. Encouraging and promoting competitive and innovative SMEs is necessary in contributing to greater economic growth and social development towards more inclusive and broad based integration of the ASEAN region (Asasen et al., 2003; ERIA, 2014).

2.4. Entrepreneurial landscape

A number of general observations can be made about SMEs as the Entrepreneurial Engine of the East and South-East Asian economies (see Hall, 2002a, Harvie and Lee, 2005). First, SMEs provide the lion’s share of employment growth. Typically, in the economies for which there are reliable data, about 70 percent of employment growth comes from SMEs. Anecdotally, even in economies for which there is no data, SMEs play a major role; for example almost all net employment creation in China, Vietnam and Indonesia in the

last ten to fifteen years has been from SMEs. In China and Indonesia, for example, large firms have been net job destroyers as they downsize - a phenomenon also common in Europe and the USA.

Second, the Entrepreneurial Engine is underpowered in much of East and South-east Asia, especially in the less developed economies of China, Indonesia, Philippines, Thailand and Vietnam (see Harvie and Lee, 2002). In these economies there are simply fewer SMEs than might be expected. This means that there are fewer start-ups, and the pool of SMEs from which high growth SMEs can emerge is much smaller. Consequently, there is less growth than there would otherwise be. In a very rough order of magnitude calculation, for these economies to achieve a benchmark level of 20 people per SME, there would have to be about 70 million new SMEs created. This needs to be compared with the 20 million or so SMEs in all of East Asia at present. This means 70 million or more people will need managerial skills and training. Most of these are in China. There is also considerable room for advancement in the development of SMEs in countries such as Indonesia and Thailand, two of the three most adversely afflicted economies during the period of the AFC in 1997-98. Not surprisingly, these countries have given increased emphasis to SME sector development, with the objective of providing a firm base for sustainable economic recovery, an expansion in employment opportunities, and as a means of alleviating poverty particularly in some of the more adversely affected regions in these countries. This situation is also similar to that in China and Vietnam, Lao PDR, Cambodia and Myanmar where, for historical, political, and cultural reasons, the development of the formal private SME sector has also been retarded. Hence the sheer potential for SME start-ups in countries such as China, Indonesia and Vietnam could be a major source of job creation and growth for these economies in the future. In economies like Vietnam and Philippines, there need to be about 3 million or more additional entrepreneurs/managers. In the past this would be seen as a government responsibility, but the task is just too enormous to even contemplate for most governments, and now probably requires a regional approach in the context of ASEAN.

Third, in developing East and South-East Asia the bulk of the SME contribution to growth will probably come from net start-ups while in developed East and South-East Asia the growth contribution will tend to come more from high growth firms.

Fourth, the Entrepreneurial Engine is becoming increasingly internationalized. For example, a small but significant proportion of SMEs in Japan, Korea and Taiwan have already expanded operations abroad, including to ASEAN economies; about 13 percent of Japan's manufacturing output is now sourced abroad. It is becoming easier for SMEs to operate across borders. This is partly as a result of efforts to reduce trade and non-trade impediments by the WTO, APEC and ASEAN. It is also part of the general globalization of business occurring as a result of improved communications (particularly e-commerce and the web), other technological and social changes, and product fragmentation and the development of production networks. This SME internationalization is not limited to specific regions, such as East Asia, but is more global.

2.5. A Caveat

While the East and South-East Asian economies have significant and sizeable SME sectors, their economic contribution varies noticeably by country and depends upon a number of factors, which should be borne in mind when conducting cross country comparisons, such as: country resource endowments (e.g. natural resources, labour force, capital); transaction costs; economic structure and the extent of market concentration; industrial structure and economies of scale; stage of economic development; institutional quality and market support structure; quality of governance; culture, including the nature and extent of domestic entrepreneurialism and innovation; history; heterogeneity of the SME sector itself; the extent of market liberalization and competition; and market friendly and supportive government policies.

3. SME contribution to new millennium development goals

Encouraging and promoting competitive and innovative SMEs is likely to be important in achieving faster economic growth and more inclusive and broad based integration of the ASEAN region. This is a primary objective of the ASEAN Economic Community and a primary goal of the ASEAN Socio-Cultural Community (ASCC) with the aim of building an inclusive and cohesive society that improves the wellbeing, livelihood and welfare of its people. The ASCC Blueprint (2009-2015) adopted at the 14th ASEAN Summit in March 2009 envisages the following characteristics of the ASEAN Community: a focus on human development,

social welfare and protection, social justice and rights, ensuring environmental sustainability, building the ASEAN identity, and narrowing the development gap. The new millennium development goals (MDGs) mirror ASEAN's commitment to building a caring and sharing community by 2015. A particular challenge is narrowing the development gap within the region between the ASEAN6 and the CMLV.

3.1. New Millennium Development goals, SMEs and ASEAN

The new millennium development goals (MDGs) consist of 8 objectives:

1. Eradicate extreme poverty and hunger
2. Achieve universal primary education
3. Promote gender equality and empower women
4. Reduce child mortality
5. Improve maternal health
6. Combat HIV/AIDS, malaria and other diseases
7. Ensure environmental sustainability
8. Develop a global partnership for development

Focus in this section is placed on how ASEAN SMEs can contribute to the following: poverty alleviation; economic empowerment and gender equality; microfinance; and the attainment of environmentally sustainable development.

3.1.1. SMEs and poverty alleviation in ASEAN

The ASEAN economies have noticeable poverty disparity (see Table 11 in Annex I), with the CMLV economies having the highest rates of poverty which are well above that for the ASEAN6 with the exception of Indonesia and the Philippines. Addressing this poverty gap represents a major challenge facing the AEC if it is to achieve its objectives of broad based and inclusive growth for ASEAN member countries. Promoting a strong, dynamic and efficient SME sector has the potential to play an important role in this. Recent studies suggest, however, that this needs to be treated with some caution.

Although a number of studies have found an association between the importance of SMEs and GDP per capita this relationship has not been found to be robust when controlling for simultaneity bias (Beck et al., 2005). While a large SME sector is found to be a characteristic of successful economies a number of studies do not find a causal relationship between SMEs and economic growth. In addition, a number of studies have also found no causal relationship between SMEs and poverty alleviation or decreased income inequality. Instead qualified evidence finds that the overall business environment facing both large and small firms, as measured by ease of firm entry and exit, sound property rights, and contract enforcement, are the critical influences on economic growth.

There are four views in the literature which are sceptical about pro SME policies benefiting economic growth and poverty (see Beck et al, 2005). First, there are large firm advantages. Large firms can exploit economies of scale and more easily undertake the fixed costs associated with research and development with positive productivity effects. Also large firms may provide more stable and higher quality jobs than small firms with positive ramifications for poverty alleviation (Rosenzweig, 1988; Brown et al., 1990). A second view challenges the argument that SMEs are more labour intensive and are better at job creation than large firms (Little et al., 1987). Research has found that under-developed financial and legal institutions not only adversely affect SMEs but they can constrain all firms from growing to their efficient sizes (Beck et al., 2003; Kumar et al., 2001). A third view questions the validity of considering firm size as an exogenous determinant of economic growth. From the industrial organisation literature, natural resource endowments, technology, policy and institutions help determine a nation's industrial composition and optimal firm size (Kumar et al., 2001). For instance, some countries may have endowments that give the

country a comparative advantage in the production of goods that are produced efficiently in large firms while other countries will have a comparative advantage in goods produced most economically in small firms (You, 1995). Similarly, countries that are open to international trade may have a larger optimal firm size than countries that are less integrated internationally (Caves et al., 1980). Institutional theories suggest that firm size will reflect the margin between intra firm transactions costs and market transactions cost, such that as market transactions costs fall relative to intra firm transactions costs the optimal firm size falls (Coase, 1937). This margin will vary across industries and countries for various institutional and technological reasons. A pro SME policy could, therefore, distort firm size and potentially hurt economic efficiency. A fourth view, termed the business environment view, questions the role of SMEs in economic growth and development, instead stressing the importance of the business environment facing all firms, big and small. From this perspective low entry and exit barriers, well defined property rights, effective contractual enforcement and firm access to finance characterise a business environment that is conducive to competition and private commercial transactions. Hence this view emphasises that the focus of the business environment should not be on SMEs per se, but, rather, on the environment facing all businesses and addressing market failures that afflict SMEs directly. A fifth view would argue that stage of economic development is important in the determination of optimal firm size. At an early stage of development economic activity is based primarily around agricultural activity and basic manufacturing which is conducive to small firm size. Most small firms are informal and many have little likelihood for growth and are mainly livelihood oriented. In such an economy average firm size will be small. As economic activity expands larger volume activity occurs and the benefits of economies of scale kick in. Average firm size will increase. This will vary by industry on the basis of different industry characteristics, technology, market volatility etc.

There is also evidence to suggest that the overall business environment is linked with economic growth, however the business environment does not influence the poor any more or less than the rest of a country's population. These results are consistent with the view that a competitive, contractually sound business environment lowers poverty by increasing the overall level of GDP per capita, but the business environment does not influence poverty beyond its impact on overall economic development. According to this view, focus should be placed on promoting the overall business environment and not SMEs per se.

3.1.2. SMEs, empowerment and gender equity

SMEs can be an important vehicle for empowerment and participation – among the poor, minorities, youth, socially disadvantaged and in particular women, enabling them to contribute to and benefit from regional growth and development. SMEs can be a particularly useful vehicle for gender empowerment. It has been estimated that about one-third of entrepreneurs in the East Asian region are women. Women entrepreneurs have an important presence in the SME sector according to a report by APEC (APEC, 1999), and they are found in all major sectors of production and services. Women own and operate around 30 per cent of business firms in the formal sector in countries such as Indonesia and the Philippines (APEC, 1999). However, these enterprises tend to be “younger” in terms of the age of their establishment and the period of their operations. They also have relatively fewer employees than the average SME. By and large, women entrepreneurs have demonstrated a strong desire to build up their business capabilities and competitiveness. They are particularly eager to undertake capacity building measures and undergo the necessary training in management and organization skills, and in productivity and quality enhancement processes. However, women entrepreneurs face many economic, social and cultural barriers (e.g. access to finance, legal issues and societal pressures to remain at home and raise a family) (APEC, 1999).

As indicated in Table 11 in Annex I gender inequality is quite noticeable across many of the ASEAN economies and presents a challenge to the achievement of gender equality. Singapore is the stand-out for greater gender equality among the ASEAN economies followed by Malaysia, Vietnam and Thailand. Gender inequality persists in the Philippines, Myanmar, Cambodia, Lao PDR and in particular Indonesia. To achieve the benefits of broad and inclusive growth will require encouraging women, youth and minorities to participate in the process and benefits of economic growth and development, and doing so by means of establishing SMEs is one possibility.

It can be observed from Table 12 that there is a distinct difference between female labour force participation in the ASEAN6 and CMLV countries. Interestingly, the latter have a much higher participation rate. This reflects the importance of activities in agriculture and manufacturing sectors such as garments,

textiles and footwear where there is a traditional reliance on a young female workforce, many of whom have moved from the rural to urban sectors for employment opportunities. The participation rate of women is much lower in Malaysia, Philippines and Indonesia. Cultural and social factors as well as a lack of employment opportunities are likely to be at work here. If social factors dominate this represents a lack of participation and economic empowerment of women in these societies, restricting the benefits from economic development and limiting the full utilisation of available resources.

As also indicated in Table 12, where data is available, youth unemployment is high in Malaysia, Philippines and in particular Indonesia. As discussed previously the economies of ASEAN present considerable business opportunities in both the rural and urban sectors. The involvement of women and youth in business activity, such as business start-ups at the local level, should be encouraged. In this context, and for the poorest of the poor, microfinance institutions can play an important role in establishing rural based micro-enterprises. In this context it is essential to identify those firms with longer term growth potential from those that are more livelihood-oriented. The financial and other needs of these different types of enterprise tend to be quite different.

A healthy and flexible SME sector will also help to sustain job creation, social cohesion and decentralized development, thus alleviating excessive and inequitable economic and regional concentration.

Table 12. Labour force participation rate

Country	Labour force participation rate. (% ages 15 and older), 2011		Youth unemployment (% ages 15-24), 2005-2011
	Female	Male	
Brunei Dar.	55.5	76.5	--
Cambodia	79.2	86.7	3.5
Indonesia	51.2	84.2	23.0
Lao PDR	76.5	79.5	--
Malaysia	43.8	76.9	11.3
Myanmar	75.0	82.1	--
Philippines	49.7	79.4	19.3
Singapore	56.5	76.6	6.7
Thailand	63.8	80.0	3.0
Vietnam	73.2	81.2	--

Source: United Nations Human Development Report, 2013

3.1.3. SMEs and education

An important driver of a dynamic SME sector, in terms of start-ups and growth, is from entrepreneurial activity. The AEC will present many business opportunities, but without the drive and acumen of entrepreneurs in the ASEAN economies these will not be realised. There are two dimensions to this. First, there is the need to ensure that entrepreneurs have requisite business skills to start-up and sustain the growth of their SMEs. This will require the provision of necessary training programs where essential skills are lacking, and in this context the role of regional governments will be critical. Such skills are most likely to be lacking in the CLMV countries, requiring broader assistance from ASEAN6 countries. Second, there is the broader issue of the education system itself (primary, secondary and tertiary sectors) and its ability to provide the necessary knowledge and skills that will be essential for a productive workforce including that of future entrepreneurs. The traditional system based on rote learning and inadequate encouragement of innovative and creative thinking will need to be addressed. In the context of SMEs, access to skilled workers with the necessary skills for the “knowledge economy” will be critical if they are to prosper in a situation of rapidly changing markets and technology where knowledge, innovation and creative activity and the ability to commercialise this will be critical sources of SME competitiveness and higher value adding activity. It will not only be essential to upgrade the skills and education of the workforce but to also create an educational and broader societal environment that encourages innovative and creative thinking and bringing new ideas to the market in the form of new goods and services from entrepreneurial activity.

This should start from an early age. For many of the economies of South-east Asia this will require major attitudinal change in society. In addition, existing SME entrepreneurs will require major changes in the ways in which they operate their businesses if SMEs are to be successful. They will need to adapt, and quickly, to the new economic environment that their businesses will be operating in. Traditional ways of conducting business will need to adapt to the new highly competitive and open markets in which they will be operating. The need to continually upgrade their own skills as well as that of their workforce will be critical for their survival. This will require investment in their workforce. For SMEs with limited resources, this has important implications for the role of government in providing training programs and ensuring that the curriculum offered in publicly funded educational establishments is of contemporary relevance to the new economic realities.

3.1.4. SMEs and the environment

An important objective of the MDGs is to address the issue of environmental sustainability. In this context SMEs can also play an important role in terms of their green approach to production and the development and usage of green technology. Flexibility in production can facilitate rapid adoption of renewable energy technology. As shown in Table 11 in Annex I the performance of the ASEAN economies is quite good in this context with the obvious exception of the heavily oil and gas dependent Brunei economy. In terms of the importance of renewables as a source of energy the CLMV economies perform best (most notably Myanmar, Cambodia and Vietnam). Although no comparable data was available for Lao PDR it could be expected that its large production of hydro-electricity also produces a favourable outcome. The poor performance of Singapore and Malaysia in the usage of renewable energy, presents opportunities for SMEs in these two countries to develop and utilise renewable energy opportunities.

4. SME bottlenecks and capacity constraints

4.1. General capacity constraints

In order for ASEAN SMEs to fully participate in the process of globalisation and take advantage of market opportunities arising from the AEC they must develop capacities enabling them to become internationally competitive, innovative and resilient. This will involve building upon the advantages they already possess—entrepreneurial spirit, flexibility, resourcefulness, and an ability to identify business opportunities and market niches based upon their unique products and services. Despite this they face a number of barriers in their development – their small size means that they have limited resources and access to finance, they lack economies of scale, they have high relative costs in accessing and utilising information technology, they have skill deficiencies in the utilisation of IT, they have entrepreneurial, managerial, accounting and marketing skill deficiencies, they lack information on market opportunities, they incur high transaction costs including that arising from accessing transport infrastructure and in the cost of transportation, achieving quality accreditation, they lack skills in dealing with customers both in the domestic market and in the export market, they have limited knowledge about language and culture as well as the legal and bureaucratic issues involved in exporting, they may experience a lack of business infrastructure support and in some countries may be discriminated against relative to large firms.

Building capacity, improving governance, reducing transaction costs, promoting further market liberalisation, addressing non-tariff barriers, implementing trade facilitation measures, increasing connectivity through improved internet access and transportation facilities, and facilitating trade and investment are all directly relevant to improving the capacity of small businesses to exploit export market opportunities and for their regional growth. SME capacity building is also necessary in a wide range of basic skills required for the effective and efficient organization and management of business undertakings. Ongoing enhancements in product quality, cost efficiency and delivery timeliness are particularly important in the above context and for the participation in production networks; and so is adequate competence in information and communications technologies. The latter is a prerequisite for tapping the tremendous potential of e-commerce and also for gainful participation in inter-firm linkages and networking and participation in production networks.

4.1.1. Access to finance

SME financing has been and remains an intractable problem, not least because financial resources are typically in short supply virtually in all developing economies. Nevertheless, many financial support measures for SMEs have limited outreach at disparate cost. In addition, capital markets in the ASEAN region are generally far from adequate for SME debt (bonds) and equity (shares) financing. Higher transaction costs, perceived risk, lack of firm transparency, and a lack of bank expertise in the evaluation of SME loans render it unprofitable for commercial banks to focus on such enterprises as their main debt clientele. In addition, most SMEs do not have a bankable business plan, which could reduce stringent bank demands for quality collateral, and they are seen as more risky by banks and especially where there is a lack of accredited credit rating agencies. Proper financial reporting and information disclosure is another difficult issue to resolve for many SMEs. As a consequence SMEs experience a financing gap, borrow on less favourable terms and for a shorter duration. As a consequence most SMEs are restricted to internal finance sources such as own savings, borrowing from friends and relatives and internal profits which puts a severe constraint on their capacity to grow and take advantage of market opportunities (see Harvie et al., 2013).

4.1.2. Connectivity to markets

In the context of rapid trade liberalization SMEs need to develop capacities to take advantage of opportunities arising from a more open regional and global trading system. The Internet is regarded as being of particular importance in this regard, as is the need to identify appropriate partners for joint ventures or strategic alliances, to harmonize standards and professional qualifications, including investment laws and taxation procedures, and the protection of intellectual property rights. Reductions in tariffs have not benefited SMEs, as their contribution to direct exports has remained static or declined in the region, and more emphasis by regional governments needs to be put on tackling non-tariff barriers and improving trade facilitation measures (customs procedures, mobility of business people, standards of labelling requirements, access to finance, recognition of professional qualifications, consumer protection particularly regarding on line transactions, and intellectual property rights) if SMEs are to benefit from trade expansion and to enhance their exporting capacity. Greater participation by SMEs in trade is likely to generate a number of benefits. With access to a larger market, individual firms will be able to benefit from economies of scale and generate additional revenue (APEC, 2002). In terms of efficiency, firms which expose themselves to more intense competition in global markets can acquire new skills, new technology and new marketing techniques. Exporters tend to apply knowledge and technologies at a faster rate and more innovatively than non-exporters. This can result in greater efficiency and productivity. A larger number of SME exporters assists skill and technology applications by spreading these over many small buyers and speeding up a multiplier effect, which extends the gains over the entire economy and not just firms that export. Ultimately, the economy will benefit from more flexible and environmentally responsive firms, higher growth rates and long-term improvements in productivity and employment levels. Exporting has a positive effect on living standards, as competition drives firms to invest in staff development, which in turn improves productivity, wages and working conditions. Exporting also encourages cultural diversity and the building of relationships and reputations with other countries.

4.1.3. Access to technology

In a knowledge-based economy, applications of information and communications technology can be a great leveller for SMEs. However, when SMEs have limited access to, or understanding of, these technologies, their prospects of acquiring and utilizing these for their benefit is reduced. In terms of the Internet, e-commerce use amongst small businesses lags behind their larger counterparts (OECD, 2000c; Hall, 2000). However, many small businesses view e-commerce as providing cost savings and growth potential and the gap relative to larger enterprises is closing, but further action by regional governments will be required (in terms of improved infrastructure, cost, and IT training, as well as information relating to business opportunities that e-commerce can generate). Enhancing the role and participation of small businesses in the global marketplace through e-commerce will be of critical importance. E-commerce presents small businesses with the opportunity to compensate for their traditional weakness in areas such as access to new export markets and competing with larger firms. It can provide global opportunities by enabling the flow of ideas across national boundaries, improving the flow of information and linking increased numbers of buyers and sellers. This provides opportunities for greater numbers of trading

partners dealing in goods and increasingly in services. Studies suggest that small businesses with higher levels of e-commerce capabilities are more likely to identify using e-commerce to reach international markets as an important benefit. Hence the desire to export for many SMEs may have a fundamental influence on promoting the rapid development of more advanced e-commerce capabilities. For many small businesses in the Asia-Pacific region, integrating the development of e-commerce into their future strategies for accessing international markets is seen as being crucial. E-commerce also has the potential to lead to cost savings and efficiency gains. Raising the awareness as well as the understanding of the benefits to be obtained from e-commerce will be important in increasing its uptake by small business. To incorporate the technology into their operations small business needs to find ways to deal with high set-up costs, as well as lack of adequate infrastructure and IT skills. If these can be overcome small business will play an important part in the region's 'new economy' at least as much as it will for more traditional forms of commerce. In this regard the role of the government is likely to be crucial. This includes: development of the telecommunications infrastructure; addressing legal and liability concerns; ensuring that fair taxation practices are applied to e-commerce; addressing security issues; and raising the awareness of the business benefits of e-commerce, including the potential for export growth.

4.1.4. Access to skilled human resources

In the knowledge and innovation driven economy access to skilled labour and human resources is critical, to enable effective utilisation of new and rapidly changing technology and facilitate innovation. Human resource development for SMEs requires a comprehensive approach including: social structures and systems such as broad educational reforms; encouragement of entrepreneurship, ongoing business skills acquisition and innovation in society; mechanisms for self-learning and ongoing training and enhancement of human resources; and appropriate governmental support programs. Among small and micro enterprises a shortage of skills in information technology and cost are major hindrances to business growth. Consequently, staff training in IT as well as in skills required to successfully enter export markets are required. Improved IT skills would enable: more efficient management of the business; workload sharing; and the development of more market opportunities including that of exports. Other desired exporting skills include language and cultural expertise, as well as legal and logistical knowledge. Again, the role of government will be critical, but this can be more effectively achieved in the context of strategic cooperation and collaboration across all ASEAN member countries.

4.1.5. Accessing information

Accurate and timely information on, for example, market opportunities, financial assistance and access to technology is crucial for SMEs to compete and grow in a global market environment. This is an important role that both the government and relevant business organizations can play.

In addition to these key areas for capacity building, there is also the need to encourage the development of business networks, including the development of strategic alliances and joint ventures, and enhancing the innovative capacity of SMEs.

4.2. Inter-firm networking and clustering

Entrepreneurs who develop and maintain ties and strategic alliances with other entrepreneurs tend to outperform those who do not. A network is a group of firms using combined resources to cooperate on joint projects. Business networks take different forms and serve different objectives. Some are structured and formal, even having their own legal personality. Others are informal, where, for instance, groups of firms share ideas or develop broad forms of cooperation. Some aim at general information sharing while others address more specific objectives (such as joint export ventures). Soft networks generally encompass a larger number of firms than hard networks, with membership often open to all that meet a minimum requirement (such as payment of an annual fee). Networks have come to encompass agreements with research bodies, education and training institutions and public authorities. Hard networks are more commercially focused, involving a limited number of pre-selected firms, sometimes formally and tightly linked through a joint venture/strategic alliance. Networks can allow accelerated learning. Moreover, peer based learning – which networks permit – is the learning medium of choice for many small firms. Furthermore, to innovate, entrepreneurs often need to re-configure relations with suppliers, which networks can facilitate. Networks can allow the sharing of overhead costs and the exploitation of specific scale

economies present in collective action. Networks need not be geographically concentrated. Once trust among participants is established, and the strategic direction agreed, operation dialogue could be facilitated through electronic means.

There is now a large amount of literature and numerous case studies on the emergence of competitive industries and the revitalization of domestic regions pushed and driven largely by networks and clusters of SMEs. The process has taken place in both developed and developing countries. It has often been induced and facilitated by support policy but there are significant instances of spontaneous development as well (Asasen et al., 2003).

A related issue in the promotion of inter-firm linkages is not whether to assist SMEs to invest in ICT-based facilities and services. Rather, it is how best to encourage SMEs to make the most cost effective use of the new technologies. In fact, ICTs are now a prerequisite for participation in the growing number of cross country production networks and global supply chains which are at the core of the ASEAN economy. They are also indispensable for tapping e-commerce opportunities which have expanded tremendously in size and scope.

4.3. Knowledge acquisition and Innovation

Recent studies have shown that despite the fact that a very small fraction of total business R&D in the developed economies is accounted for by SMEs, they contribute greatly to the innovation system by introducing, in particular, new products and adapting existing products to the needs of their customers (OECD, 2000a). Small firms account for a disproportionate share of new product innovations despite their low R&D expenditures (Acs and Audretsch, 1990). In addition, they have also been innovative in terms of improved designs and product processes and in the adoption of new technologies. Investment in innovative activities is on the rise in SMEs and is increasing at a faster rate than that for large firms. Scherer (1988) has suggested that SMEs possess a number of advantages relative to large firms when it comes to innovative activity. First, they are less bureaucratic than highly structured organizations. Second, many advances in technology accumulate on a myriad of detailed inventions involving individual components, materials and fabrications techniques. The sales possibilities for making such narrow, detailed advances are often too small to interest large firms. Third, it is easier to sustain high interest in innovation in small organizations where the links between challenges, staff and potential rewards are tight. Firms in the developed high cost economies can no longer compete in labour intensive areas of production where they have lost their comparative advantage, but rather must shift into knowledge based economic activities where comparative advantage is compatible with both high wages and high levels of employment. This emerging comparative advantage is based on innovative activity. For the developed economies of East Asia their future international competitiveness will also depend upon their ability to develop a capacity in knowledge intensive firms, many of which will be SMEs based upon the experience of the developed OECD economies.

4.4. Entrepreneurship education and training

Among the constraints faced by SMEs in the ASEAN economies is the lack of a sustained track record in entrepreneurship development, and this is particularly the case for the CLMV countries. Extensive capacity building is needed by SMEs in business skills and operational capabilities for a fuller exploitation of the new market opportunities and new technologies including that of e-commerce. It will be essential to facilitate training-based programs in entrepreneurship development. In this context, considerable assistance to the four newer member countries is expected from ASEAN-6, at least in the short to medium term. Such capacity enhancement needs to be complemented, however, by ancillary development from the public and/or semi-public sector of hard and soft infrastructure prerequisites which are of high quality, accessible and affordable. Such development and the related policy issues are generally of a longer-term nature.

4.5. Missing middle

As discussed previously the economies of South-east Asia can be characterised as having a missing middle of SMEs. There are many formal and informal micro and small enterprises which dominate the economy in terms of business numbers but make a significantly smaller proportional contribution to output,

employment and exports, and have a small number of large enterprises that are either state owned or are subsidiaries of multinational enterprises but which make a significantly larger proportional impact on employment, output and exports. The lack of medium sized enterprises is a reflection of the relative hollowness of industrial sectors and structures. Capacity constraints for micro and small enterprises are reflected in the very small number of medium sized enterprises. These enterprises, based on the experience of developed economies, tend to contribute proportionally more to employment, output and exports. They also have more resources to engage in research and development and to be more innovative and creative. They are also likely to export and to have the capacity to engage in networking and clustering as well as participating in higher value adding activity. They are also more likely to be able to participate in cross border production networks. Consequently, a major challenge facing SME policy makers in the South-east Asian economies is how best to facilitate the development of medium sized enterprises, which will require addressing the capacity constraints addressed in this section.

5. SMEs and Production networks (value chains).

5.1. Background

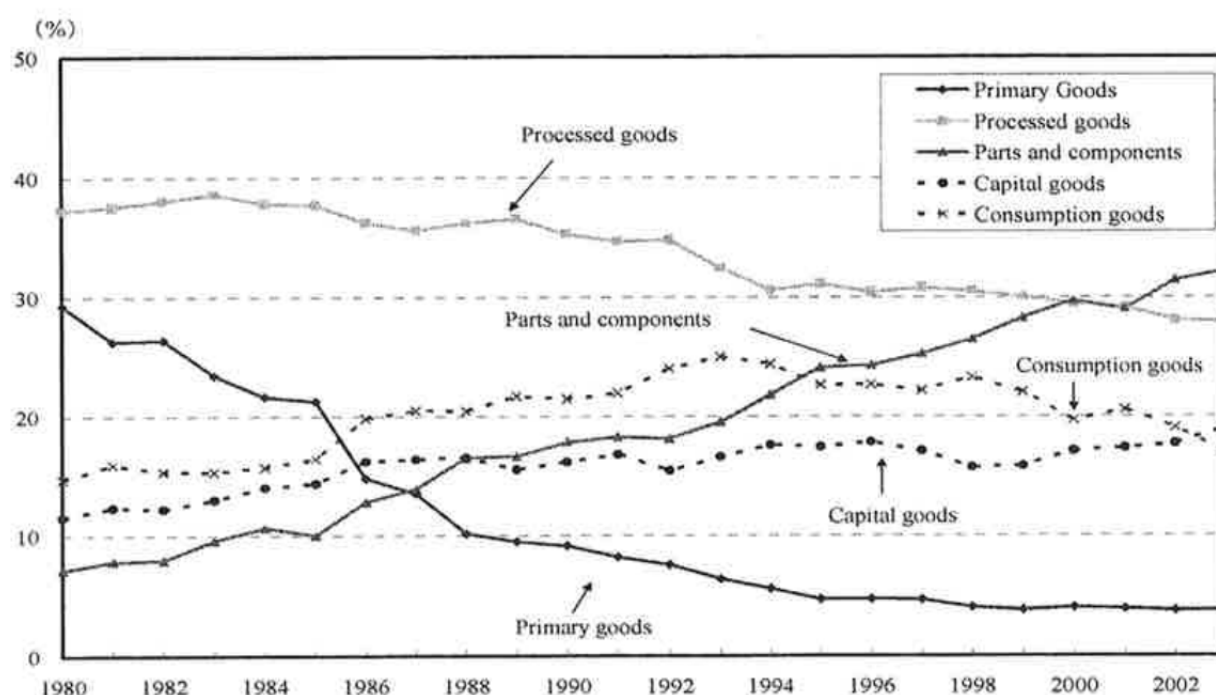
Since the early 1990s international production/value creating networks have developed rapidly, involving many of the countries of East and South-east Asia. These have been driven by the intensification of global competition (cost, quality and delivery), the adoption of a new global business model focusing upon global markets, global sourcing, flexible production, a focus on core business, subcontracting and outsourcing, knowledge creation, commercialisation and innovation, rapid technological change and production discontinuities, advances in ICT, facilitated by regional, sub-regional and bilateral free trade agreements (FTAs) (Ando and Kimura; 2005a, 2005b). This has resulted in a production-process wise regional division of labour and production location across countries with different income levels and development stages, and a significant shift away from a traditional north-south pattern of trade to one in which there has been a rapid increase in vertical intra-industry trade, particularly in parts and components in the machinery industries, which is gradually dominating trade within the East Asian region more generally and with the South-east Asian economies at the core. Associated with this development FDI flows have moved from import substituting industries and export oriented confined to export processing zones from which the domestic economy was insulated, to export oriented network-forming type FDI (see Ando, 2006; Ando, Arndt and Kimura, 2006). In South-east Asia the Philippines, Singapore, Malaysia and Thailand actively import and export machinery parts and components, as is the case for North-East Asia (China, Japan and Korea). While less developed, Indonesia, Vietnam, Myanmar, Cambodia and Laos PDR are increasingly participating in regional production networks. In the context of this report it is of particular interest to identify the challenges and opportunities such networks provide for the SME sector across these various economies.

The formation of international production/distribution networks has fundamentally changed the pattern of production location and international trade in East Asia. International trade statistics show that economic integration within the region has developed rapidly. The share of intra-East Asian trade, where East Asia is defined as ASEAN, China, Japan, Hong Kong, South Korea and Taiwan, increased from around 33.6 per cent in 1980 to 53.3 per cent in 2003. This figure is higher than that for NAFTA (44.5 per cent) and less than that for the EU (60.3 per cent). While the AFC of 1997-98 did not interrupt this process of integration, the global financial crisis seriously impacted the exports of East Asian economies because final demand in the US and Europe sharply declined. An interesting recent development is that countries at a relatively lower income level are increasingly playing a significant role in the expansion of intra-regional trade in East Asia.

The trade pattern inside East Asia, and the contribution of South-east Asian economies, has changed from the traditional pattern where final products such as consumer goods, intermediate goods and capital goods were predominant in trade to one where predominance is now in the form of parts and components (Lim and Kimura, 2009; Athukorala and Kohpaiboo, 2009) (see Figure 1). Intermediate goods in the same industry are traded amongst Asian countries expanding intra-industry and intra-regional trade. For instance, import shares of parts and components within East Asia more generally increased from 7.2 per cent in 1980 to 32.2 per cent in 2003, while those of processed goods decreased from 37.3 per cent to 28 per cent during the same years. The shares of parts and components have become the largest traded

commodity groups (see Figure 1). This explosion of trade in intermediate goods, particularly in the machinery industries, is based on a production and process wide international division of labour among countries at different income levels and development stages. Trade patterns have now become quite different from the traditional pattern based on static comparative advantage. Production processes now involve sequential production blocks that locate across countries. Different stages of production are located in different countries and undertaken by different firms, consequently products traded between different firms in different countries are components instead of final products. While networks can be formed in various industries the most important in East and South-east Asia, both quantitatively and qualitatively, are those in the machinery industries, including general machinery, electric machinery, transport equipment and precision machinery (HS 84-92) (Kimura, 2009). The machinery industries deal with a large number of multi-layered vertical production/distribution processes and technology, ideal for the development of cross border production/ distribution networks and very suited for the ASEAN economies in particular which are at very different stages of economic development.

Figure 1. Trade Patterns within East Asia, 1980-2003



5.2. Product fragmentation

The above phenomenon is known as cross border production sharing or fragmentation of production. Production processes are finely sliced into many stages and located in different countries in East Asia, with South-east Asian countries at the core (Ando and Kimura, 2005b). With such vertical specialization a slight decline in trade costs induces large trade in intermediate goods since goods may move across national borders multiple times. For example, an intermediate good is exported from country A to country B and is imported back to country A again after processing in country B. In this case the good crosses a national border four times. When trade costs go down, the competitiveness of the whole of East Asia considerably increases and this provides a further boost to intra-industry and intra-regional trade (Ando and Kimura, 2005b).

The literature on product fragmentation and its empirical verification expanded rapidly after the seminal contribution of Jones and Kierzkowski (1990), proving its applicability in analysing cross border production sharing at the production process level (Ando and Kimura, 2005a). From an East and South-east Asian perspective, however, production/ distribution networks have become quite distinctive and the most

developed in the world (Ando and Kimura, 2005b) as measured by: their significance for each economy in the region; their extensiveness in terms of country coverage; and their sophistication which can involve subtle combinations of intra-firm and arm's length (inter-firm) transactions. Consequently, these networks have developed beyond the original idea of fragmentation, requiring a re-appraisal and expansion of the original analytical framework in order to capture more subtle and sophisticated intra-firm and arm's length (inter-firm) transactions. In this context Ando and Kimura (2005b) propose the concept of two dimensional fragmentation to analyse the mechanics of production/ distribution networks in East Asia. We return to this below in the context of SME participation in regional production/ distribution networks.

Fragmentation theory focuses on the location of production processes. Production processes are fragmented or separated into multiple slices and located, say, in different countries in East and South-East Asia, and makes sense when (i) there is production cost saving in fragmented production blocks; whereby the firm can take advantage of differences in location advantages (lower labour and production costs) between the original position and a new position. Second, incurred service link costs involved in connecting remotely located production blocks i.e. costs of transportation, telecommunications and various other types of coordination are lower. Third, the cost of network set-ups is small. The feasibility of fragmented production/distribution (location and by firm) in an industry is heavily influenced by: the number of parts and components required in the production of the final product; the greater the variety of technologies utilized in the production of these parts and components (labour intensive, capital intensive); and the economic environment within individual countries and for the region as a whole.

International production/distribution networks in ASEAN and surrounding East Asia have become the most advanced and sophisticated in the world in large part due to the existence of a favourable policy environment for globalizing corporate activities. By incorporating the idea of intimacy between geographical proximity and arm's length transactions, the framework of product fragmentation can explain the simultaneous development of firm level fragmentation of production processes and the industry level formation of agglomeration and clustering. A reduction in production costs in fragmented production blocks, reduced service links costs and lower network set-up costs will all contribute to the further fragmentation of production/distribution networks (Ando and Kimura, 2005b).

5.3. International Production Networks and SMEs – Opportunities and Challenges

5.3.1. Challenges for SMEs in the East-Asian region

Given the ongoing trend of increased globalization and regional economic integration in South-east Asia, significant potential exists for regional SMEs to expand their participation in production networks. SMEs have the opportunity to play a crucial role both as indigenous and foreign based firms in the network on an arm's length basis in various forms, including subcontracting arrangements and original equipment manufacturer (OEM) contracts. SMEs are also essential components of industrial agglomeration. In this context, not only multinational SMEs but also local SMEs can be important participants in a vertical arm's length division of labour.

As discussed in the previous section, however, they possess certain characteristics that may limit their ability to do so. First, they face a lack of access to finance due to market failures in financial markets (see Harvie et al., (2013), and limited primary and secondary markets such as those for SME equity and bond financing. Second, the SME sector's development is constrained by a lack of skill and expertise in organisation and management, which are important for enterprises' efficiency, flexibility and competitiveness (Asasen et al., 2003). Related to this is the issue of ICT capability in which SMEs clearly lag. Third, there is a shortage of sustainable entrepreneurial drive in the sector. This can be attributed to a weak innovation culture and to an over-reliance on technologies brought in by MNCs. Entrepreneurship capabilities are crucial for SMEs to maximise their inherent comparative advantages gained from operating on a small scale, such as the flexibility to adapt to changing markets, helping them sustain high levels of export competitiveness. Finally, there is a lack of networking. Many SMEs are inward looking. Networks and linkages require fundamental shifts in business strategies that SMEs may not be able to achieve because of a lack of resources and knowledge. The development of business networks and linkages is a strategically important role that can be encouraged through ASEAN itself.

5.3.2. Opportunities for SMEs in the East and South-east Asian region

Multi-national corporations (MNCs) have expanded their production, material and resource sourcing and markets beyond their domestic economies. Because of pressures from economic integration, global competition and the Just in Time (JIT) production system, the region has now become fully connected into a Global Value Chain system which produces output for the global market place (especially the US and EU). This provides new opportunities for developing countries, including the CLMV countries in ASEAN, to enter international trade through production sharing and outsourcing. Improvements in ICT have reduced the costs of collaboration and linkages, both within and across borders. Indeed, clusters or networks of inter-linked SMEs are behind most competitive supply networks that have proliferated globally in recent years. The international production networks developed from the early 1990s in East and South-east Asia are gradually spreading to other less developed economies in the region (e.g. Vietnam, Cambodia and Lao PDR), to India, Australia and New Zealand, driven by market forces and facilitated by regional, sub-regional and bilateral FTAs. The fragmentation phenomenon suggests that differences in location advantages such as factor prices motivate fragmentation of the production process. Regional economic integration, therefore, has set off dynamic growth impulses through global and regional production networking. This process has been facilitated by industrial agglomeration and fragmentation in sequential order. SMEs most able to take advantage of these two underlying fundamental forces have been growing faster and more sustainably.

Concurrently, economic openness and domestic trade and investment liberalisation have dramatically increased competition in domestic, regional and global marketplaces. Larger and efficient companies are normally more able to leverage these new opportunities and challenges in domestic markets as well as across borderless external markets. This challenging new economic environment tends to put SMEs at a disadvantage compared to large-medium sized enterprises. However, the fact is that large and small-medium enterprises are the two important engines and wheels of development in East and South-east Asia. While MNCs and domestic large enterprises have been playing an important role in accelerating the industrialization process, SMEs provide the crucial industrial linkages to set off a chain reaction of broad based and sustainable development. Without SMEs as subcontractors and suppliers of intermediate inputs to MNCs and domestic large enterprises, industrial growth in developing countries and a sustained increase in domestic value added, employment, productivity and industrial linkages cannot be achieved. SMEs provide a key source of domestic employment creation, resilience against more volatile external economic fluctuations and mechanisms for local capacity building. A critical issue is how best to establish these industrial linkages between SMEs, large local and MNCs. In this context regional governments, and more importantly ASEAN countries as a bloc, will have to play a vital role in ensuring competitive market structures, in providing relevant and effective technical upgrading, marketing information and management, consortium financing, business linkages and facilitate competitive clusters of SMEs (Schmitz, 1995; Thee, 1994).

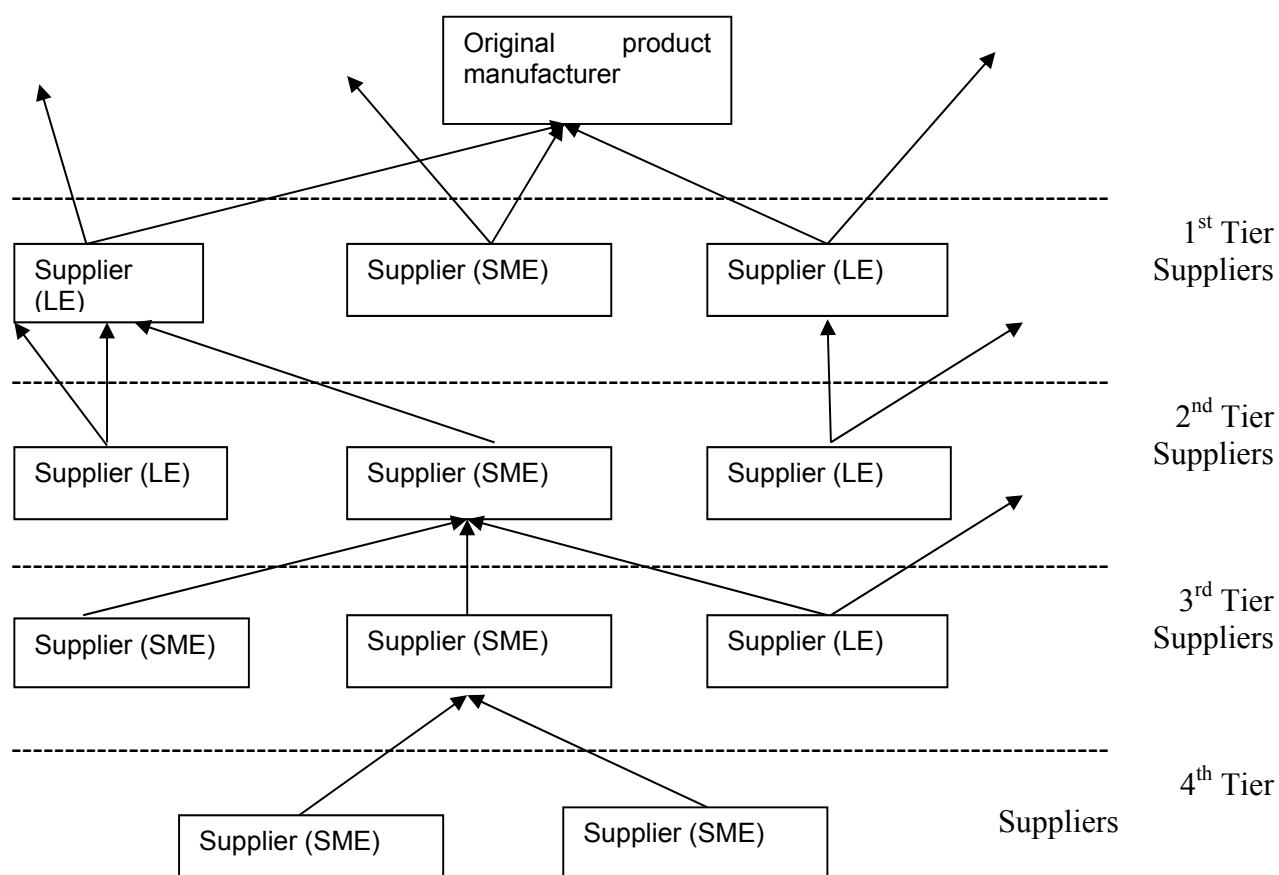
There is much evidence to suggest that local firms and SMEs are participating in production networks, particularly in the electronics, machinery, ICT, automobile and service industries (Kimura, 2009). Local SMEs are participating in producing not only parts and components but also industrial equipment. Economic integration has provided business opportunities in not only participating in production networks but also in capturing expanded domestic and external markets. Local firms and SMEs have succeeded in establishing linkages with MNCs (either directly or indirectly) and expanding their business in integrated markets (Thee, 1994). To maximise the benefits arising from this will require improved SME international competitiveness through R&D, improved quality control and skills. Governments can also assist in promoting the development of local parts and supplier industries. This is likely to be an effective strategy to expand the domestic content of MNCs operating in the country. A broader and strategic approach under the auspices of ASEAN is likely to be even more effective in this regard.

Without an improvement in the efficiency of local firms and SMEs, regional integration cannot be sustainable as there will be more domestic opposition and economic and social instability in countries that experience increasing unemployment. This is the crux of regional economic integration and sustainability. It must not only increase firm efficiency but also provide positive and acceptable benefits to every constituent member of the free trade area or economic community. Regional integration may tend to increase income disparity among members of the AEC, if some countervailing measures are not properly instituted. In this respect the development of viable and sustainable SMEs provides an effective measure to counter the negative effects of globalization and regional economic integration. Therefore, improving the

competitiveness and capability of SMEs is vital for the sustainability of regional economic integration (Harvie, 2008). Countries at different stages of economic development require different focus and core policy instruments aimed at improving the capability of their SMEs. Technology and industry upgrading are the core measures that must be continually implemented in order to be competitive, in addition to clustering and improved marketing capability. Development of the technological capability of SMEs is an integral policy for liberalizing the trade and investment regime. Regional economic integration opens up opportunities and challenges for policy makers to provide industrial and technological upgrading for SMEs.

5.4. The Process of SME Integration into Production Networks

The establishment of production networks can be seen as being multi-tiered in nature. Consequently, production networks are part of a global production value chain. Global value chains can be interpreted as a broader concept than production networks. Global value chains are evolving tiered structures. The main role is traditionally played by a lead firm (multi-national enterprise) that manufactures the final product (Original Product or Equipment Manufacturer). This firm is supported by a small number of preferred first tier suppliers, which are supplied by other suppliers and so on, forming a tiered structure consisting of large and small enterprises (see Figure 2). It is generally easier to enter a network as a lower tier supplier which SMEs in low income economies tend to do. But this position tends to be unstable as the SME can be easily replaced by other suppliers that offer better comparative advantages such as lower (labour) costs (Abonyi, 2005). The challenge facing SMEs is two-dimensional. First, to try and enter a global value chain, and, second, to also move up the tiers by upgrading the added value content of their activities. A study by Harvie et al. (2010) focused upon identifying key factors that are important for SME participation in a regional production network, and then key factors influencing the participation of SMEs in higher value adding tiers (tiers 1 and 2 in Figure 1) of a production network using data for seven ASEAN economies plus China. They found that the key factors and characteristics positively associated with the ability of SMEs to participate in a production network were: labour productivity, foreign ownership share, financial stability and cost of credit, an ability to meet international standards of their goods, had introduced ICT as part of their core business, had demonstrated an innovation capability (as measured by established a new division, acquired new machinery, improved existing machinery, acquired new machinery, improved existing machinery, acquired production knowledge and introduced new products), had a positive attitude towards risk and a willingness to adopt a new business strategy. Those SMEs that had moved up into higher value adding production tiers had the following statistically significant characteristics: higher labour productivity, significant foreign ownership share, had ICT as a core part of their business activity, had acquired production knowledge and were larger sized SMEs (medium-sized enterprises). The latter point confirms the importance of addressing barriers that small firms face if they are to expand to becoming medium-sized enterprises.

Figure 2. Global and regional production networks and SMEs

Source: Abonyi, 2005; Notes: LE – Large enterprise, SME – small or medium sized enterprise

6. SME policies and internationalisation

As discussed in a previous section the importance of SME development and related policies is embedded in the third pillar of the ASEAN Economic Community Blueprint, specifically in relation to the issue of achieving equitable economic development. The ASEAN Policy Blueprint for SME Development (APBSB) 2004-2014 and the Strategic Action Plan for ASEAN SME Development (SAPASD) 2010-2015 which replaced the APBSB, form the basis of SME development policy in ASEAN. The latter prioritises SME policies relating to access to finance, technology development, human resource development and others in order to enhance the resilience and competitiveness of SMEs. Post 2015 AEC will also require a clear policy strategy from ASEAN leaders for the involvement of the private sector, and especially SMEs, to achieve inclusive and broad based growth in the region. Such a strategy is currently missing. Emphasis on developing cross border production and network linkages, building capacity and enhancing the international competitiveness of regional SMEs are core development policies. Considerable emphasis will continue to be put on SME participation in cross border production networks. This will require improvement in the cost, quality and delivery capability of products and services provided by SME as well as addressing other capacity constraints highlighted in previous sections. Adopting an ASEAN wide strategic approach by regional governments is most likely to produce successful outcomes.

7. Business support institutions and mechanisms for SMEs

There are many deficiencies in the institutional framework of ASEAN countries that require urgent attention if a vibrant and dynamic SME sector is to be achieved for the region. In this context three aspects are

emphasised. First, there are weaknesses in the legal framework and excessive bureaucracy. Second there are weaknesses in the institutional framework, most importantly relating to financial institutions and markets which make it difficult for SMEs to gain access to finance to enable their growth and development (see Beck et al., 2003). Third, there is inadequacy in the provision of business development services.

For many ASEAN economies, and in particular the CLMV group, there are weaknesses in the legal framework relating to issues of: insufficient protection of intellectual property rights that can stifle innovation and creativity in the development of new products and processes; inadequate or missing contract laws; disclosure laws in regard to accounting and financial transparency of SMEs that can result in a loss of transparency in their operations that make them less attractive to investors and financial institutions; clear market entry and exit laws, such as a bankruptcy law which can make investment in SMEs less attractive to financial institutions; and an SME law identifying the rights and obligations of SMEs. In addition to problems with the legal framework and its lack of protection for SME owners and financial institutions, government institutions and associated bureaucracy and added costs (labour standards, health and safety standards, environmental standards and firm registration costs) can also stifle entrepreneurial activity and discourage firm formalisation.

The capabilities of business support institutions also need to be improved and this is particularly important in the financial sector, where capabilities in credit rating information and institutions are required. Commercial banks, in particular, which dominate ASEAN economy financial sectors, tend to be reluctant to lend to SMEs due to: a lack of transparency in their operations; a lack of legal protection in the form of a bankruptcy law for lenders to SMEs; greater likelihood of bankruptcy and perceived higher risk; lack of cash flow and resilience to economic downturns; lack of bank capacity to evaluate SME lending viability; lack of collateral (fixed assets); lack of a business plan; and many small businesses are in the informal sector. Banks are also not good at lending to innovative SMEs where their major form of collateral is intangible, such as a potentially good idea for a new good or service, but not physical assets. In such cases there is a need to develop both deeper and broader financial markets. In many ASEAN economies financial markets are shallow, lacking in financial depth, as well as narrow, and heavily based upon commercial banks as a source of finance. More broadly based sources of finance need to be developed aimed at meeting the specific requirements of start-ups and small innovation driven SMEs (e.g. a venture capital market). This is a major challenge facing many countries in ASEAN and in particular the CLMV countries, which still have very rudimentary, shallow and narrowly based financial systems. Financial regionalisation aimed at widening the investor and resource base for ASEAN countries, particularly for regional SMEs, should be considered a policy priority for ASEAN leaders.

Another area of importance is the provision of business developments services (BDS) for SMEs. This refers to business services relating to accounting, legal, consulting, taxation and marketing services. A number of countries in South-east Asia, particularly the CLMV countries, are not well served with these services which can result in barriers to business development. During the early stages of economic development, and for emerging market economies, there is a dearth of market oriented BDS services. Their lack of provision can be as a result of market failure in rudimentary market oriented economies that requires initial provision by government. As private markets and SMEs evolve there is likely to come a point where such services can be profitably provided by the private sector itself. Addressing the needs of SMEs by providing BDS will be essential if they are to play an important role in many of the ASEAN economies.

7.1. Role of government

The public sector plays an indispensable, and continually evolving, role in sustaining a stable and equitable pattern of economic and social development. This is also the case for SME sector development, but this role will be heavily influenced by stage of economic development. In the early stage of development, with rudimentary private markets and market support institutions, the role of government is likely to be more interventionist in nature. As economies evolve and develop the role of the public sector must evolve and become more focused on the facilitation of private sector development in nature. Implied imperatives in this regard are good governance, a conducive policy environment, and public-private sector collaboration – especially in the promotion of private sector entrepreneurial activity and innovation, provision of physical infrastructure and connectivity, provision of education services, training programs and health services to

ensure workforce productivity, facilitate cross-border linkages, trade and investment flows through national policy initiatives as well as collaboratively through regional organisations (e.g. APEC, ASEAN).

Regional governments in South-east Asia will have a crucial role to play in fostering economic development and social transformation both domestically and in the broader context of ASEAN as a consequence of the AEC. The challenges faced by governments in the CLMV, in particular, will be extensive, and to be successful will require assistance and collaboration with ASEAN6 members. Table 13 summarises the challenges faced by regional governments at both the macroeconomic and microeconomic levels to encourage growth of private sector SMEs. A number of these requirements have already been alluded to in earlier sections of this report.

Table 13. Role of Government: Key ingredients for establishing private sector SMEs

Macroeconomic environment	Microeconomic environment
1. Economic stability	1. Simplified legal/regulatory systems
2. Low budget deficits	2. Low compliance costs and regulatory burden (administrative costs). Facilitate firm start-ups and expansion
3. Low inflation	3. Low formalising costs (easy and transparent firm registration, business licensing requirements minimised, and low tax costs)
4. Pro business environment	4. Competition policy - continue and speed up ongoing market reforms and deregulation
5. Stable/competitive exchange rate	5. Good corporate governance (transparency and corruption)
6. Openness to trade. Trade negotiations and reducing trade barriers (ASEAN, WTO) – tariff and non tariff barriers	6. Absence of corruption (transaction costs)
7. Economic integration	7. Access to finance (use of SME assets as collateral (land and land use rights), venture capital, equity markets, stronger financing institutions). Strengthening financial intermediaries that lend to small business
8. Openness to FDI	8. Government procurement policy
9. Broad National Development and Poverty Strategy, embedding strategies for the private sector and SMEs (SEDS).	9. Provision of suitable infrastructure – communications, transport and utilities. With globalisation ICT infrastructure is very important (virtual clusters).
10. Education/training and health system	10. Skilled workforce
	11. Level playing field treatment of all enterprises
	12. Tackle market failures (barriers to entry)
	13. Encourage and facilitate the growth of private business development (advisory) services
	14. Promote the role and contribution of entrepreneurship in society
	15. Establish multi-sector ownership
	16. Develop an institutional environment where contracts are enforced and property rights established and clear
	17. Legislation and regulation gender insensitive
	18. Land/bankruptcy legislation that ensures access to land for SMEs and clear land use rights, and eliminates unduly high penalties on entrepreneurs and lenders arising from SME failure. Market exit should be made easy.
	19. Encourage the establishment of industry organisations that will represent the interests of members and provide market information.
	20. Encourage networks, and clusters of international, national and local level small firms.

The macroeconomic context is very important. A sound macroeconomic policy environment, institutions and regulations constitute a precondition for durable, stable and equitable growth and transformation. Establishing a stable economic environment is essential for the nurturing and growth of SMEs and, in general, the private sector. Maintaining low budget deficits, low inflation, low interest rates and a stable and competitive exchange rate are pivotal, as is ensuring a pro-business environment and related policies. Maintaining openness to trade and attractiveness to FDI is a high priority for governments in South-east Asia. Implementing National Development and Poverty Strategies that embed at the core policies aimed at enhancing the private sector and SMEs in particular is critical for many economies and particularly CLMV members. In this regard collaboration between the public and private sectors is important. For maximum efficiency and effectiveness joint efforts have to be conceived and carried out under well established, clear-cut, transparent and predictable guidelines and benchmarks. Government also has a critical role to ensure expenditure in providing good education and training for its population and a good health system, both of which are important to enhance the productivity of the workforce and create a larger pool of workers who are suitably skilled, experienced and readily re-trainable.

At the microeconomic level government has an important role in ensuring the proper functioning of markets and market support institutions and regulations. The coverage of these issues is quite exhaustive and challenging. First, there is the need for a simplified legal and regulatory system, focusing upon contract enforcement, protection of intellectual property rights, bankruptcy law, land use rights, low compliance costs from firm formalisation that will encourage firm SME start-ups and expansion and easy market exit. These should also be gender neutral. These can build trust and confidence as well as a culture of entrepreneurship, innovation and networking among business players and actors and among other socio-economic strata. Second, address market failures such as barriers to entry, access to government procurement projects, access to finance and discriminatory taxes, charges and policies against SMEs. Important in this context is the introduction of an ASEAN wide competition policy aimed at levelling the playing field for all enterprises irrespective of size, preventing the abuse of a dominant market position, protecting health and safety and the environment. Third, implement measures that will encourage good corporate governance by increasing transparency and addressing corruption. Fourth, provide necessary hard and soft infrastructure and facilities. The provision of these by government can enhance the efficiency, productivity and competitiveness of SMEs. Hard infrastructure can enhance connectivity, and just in time participation, though improved transportation (roads, airports, rail and ports), communications and utilities. Good physical infrastructure is essential for SMEs to participate in production networks which require the delivery or receipt of products, parts and components to/from cross border destinations at subsequent or earlier stages of the production process. Good communications, especially ICT, is essential for SMEs to engage in e-commerce transactions as part of a production network. Infrastructure is critical to enhancing the competitiveness of local firms, establishing competitive and cross border SME clusters and in attracting FDI. Soft infrastructure in the form of local networks can be cultivated by means of encouraging the establishment of local industry associations that will represent the interest of members and provide a means of providing market information. These domestic networks and associations can also be leveraged to expand cross border networks as well as in attracting FDI by linking multinational enterprises with domestic subcontractors or suppliers.

Fifth, it is important for government to establish an environment that encourages entrepreneurial activity and the ability to exploit new market opportunities and the establishment and nurturing of new multi-ownership SMEs. This will require establishment of business development services. Their initial provision will likely require an active role for the public sector due to market failure, but as the economy develops these can increasingly be provided via the market. Strategic collaboration by regional governments in these areas is likely to be most effective, indicating the important role of ASEAN in this context.

8. Summary and major conclusions

SMEs represent an integral part of the economies of South-east Asia. They make significant contributions to regional economies from many perspectives – output, growth, employment, exports, entrepreneurial activity, poverty alleviation and economic empowerment. Globalization and closer regional economic integration through ASEAN membership present them with many challenges as well as opportunities. They face capacity constraints arising from difficulty in accessing finance, technology and skilled labour, which also results in inadequate innovative activity, entrepreneurial deficiencies, limited connectivity to domestic and international markets, lower productivity and competitiveness. These capacity constraints can result in

a “missing middle”, where micro and small firms fail to mature into medium-sized enterprises. Medium-sized enterprises contribute disproportionately to output, employment and exports relative to their contribution to business numbers and they have a greater capacity to engage in higher value adding activity in production networks. Addressing these issues is of importance to ASEAN leaders and policy makers.

Of particular interest from regional integration are the opportunities for regional SMEs to participate in global and regional production networks (value chains). East Asia has some of the most sophisticated and deep cross border production networks. Regional economies have an incentive to encourage local SMEs to participate in these, by facilitating the development of internationally competitive clusters of SMEs that can act as suppliers to multinational production networks. In the process attracting FDI and technology transfer. Not all SMEs will be suitable for such participation, but it is clearly of considerable interest for governments, and for protagonists of further regional integration, to identify those SMEs most conducive for cross border production network participation and to further encourage those SMEs already involved.

The future success of regional economic integration (AEC) and the ASEAN economies is likely to depend upon mutual benefits for all participating nations and the attainment of inclusive and broad based growth. This has been explicitly recognised by ASEAN leaders in terms of the AEC Blueprint and its focus on SME development through the ASEAN Policy Blueprint for SME Development (APBSB) 2004-2014 and subsequent Strategic Action Plan for ASEAN SME Development (SAPASD) 2010-2015. Strategic cooperation and collaboration by regional governments under the auspices of ASEAN will be important.

The role of member governments, in collaboration with the private sector, will be essential in establishing policies for a conducive business environment in which the private sector, and in particular SMEs, can be nurtured, developed and made more internationally competitive. Mainly through the on-going building up of human and technological capabilities, including through the targeted provision of BDS, and through the promotion, widening and deepening of competitive enterprise networks, clusters and other inter-firm collaborative linkages within and across borders. The aim being to develop a durable pattern of socio-economic growth, structural diversification and modernization, and quality enhancement that will lead to higher levels of local value-added, greater productivity and further production flexibility. At the same time, gain technological and innovation capabilities that will take place along with the formation and emergence of an increasing number of domestic clusters of enterprises, and denser networks of inter-firm linkages and partnering within and across borders. Inculcating a culture of entrepreneurship, innovation and networking among ASEAN SMEs is also essential.

The challenges facing South-east Asian SMEs are many but the opportunities they face, if suitably exploited, have the potential to result in the development of a dynamic and competitive SME sector in regional economies.

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Annex I

Table 2. ASEAN Economic Indicators – by member country, 2013

Country	GDP Current prices (US\$ bn.)	GDP per capita PPP US\$	Exports (US\$bn.)	Imports (US\$ bn.)	Total trade (US\$bn.)	Exports/ GDP (%)	Total trade/GDP (%)	FDI inflow US\$mn.	FDI/ GDP (%)
Brunei Dar.	16.1(0.7)	53,016.9	11.4(0.9)	3.6(0.3)	15.1(0.6)	71.0	94.0	908.4(0.7)	5.6
Cambodia	15.7(0.7)	2,652.6	9.1(0.7)	9.2(0.7)	18.3(0.7)	58.0	116.6	1,274.9(1.0)	8.1
Indonesia	862.6(36.0)	5,132.5	182.6(14.4)	186.6(15.0)	369.2(14.7)	21.2	42.8	18,443.8(15.1)	2.1
Lao PDR	10.0(0.4)	3,127.2	2.6(0.2)	3.3(0.3)	5.9(0.2)	26.0	59.0	426.7(0.3)	4.3
Malaysia	312.1(13.0)	17,540.5	228.3(18.0)	206.0(16.6)	434.3(17.3)	73.0	139.2	12,297.4(10.0)	3.9
Myanmar	56.4(2.4)	1,834.7	11.4(0.9)	12.0(1.0)	23.4(0.9)	20.0	41.5	2,620.9(2.1)	4.6
Philippines	269.0(11.2)	4,545.9	54.0(4.2)	65.1(5.2)	119.1(4.7)	20.0	44.3	3,859.8(3.2)	1.4
Singapore	297.9(12.4)	65,063.5	410.2(32.3)	373.0(30.0)	783.3(31.2)	137.7	262.9	60,644.9(49.6)	20.4
Thailand	387.5(16.2)	9,872.7	228.7(18.0)	249.5(20.1)	478.2(19.0)	59.0	123.4	12,999.8(10.6)	3.4
Vietnam	171.2(7.1)	4,026.1	132.7(10.4)	132.1(10.6)	264.8(10.5)	77.5	154.7	8,900.0(7.3)	5.2
ASEAN	2,398.5(100.0)	6,135.7	1,271.0(100.0)	1,240.5(100.0)	2,511.5(100.0)	53.0	104.7	122,376.5(100.0)	5.1

Source: ASEAN Statistics, ASEAN Secretariat

Table 8. FDI net inflows in ASEAN and member countries, intra and extra-ASEAN, 2013 (value in US\$ mn., share in percent)

Country	2013			Share to total, 2013			Share to total net inflow, 2013		
	Intra ASEAN	Extra ASEAN	Total	Intra ASEAN	Extra ASEAN	Total	Intra ASEAN	Extra ASEAN	Total
Brunei Dar.	(72.6)	981.0	908.4	-0.3	1.0	0.7	-8.0	108.0	100.0
Cambodia	298.8	976.1	1,274.9	1.4	1.0	1.0	23.4	76.6	100.0
Indonesia	8,721.1	9,722.7	18,443.8	40.9	9.7	15.1	47.3	52.7	100.0
Lao PDR	n.a.	n.a.	426.7	n.a.	n.a.	0.3	n.a.	n.a.	100.0
Malaysia	2,187.5	10,109.9	12,297.4	10.3	10.0	10.0	17.8	82.2	100.0
Myanmar	1,186.8	1,434.1	2,620.9	5.6	1.4	2.1	45.3	54.7	100.0
Philippines	(41.7)	3,901.5	3,859.8	-0.2	3.9	3.2	-1.1	101.1	100.0
Singapore	5,706.2	54,938.7	60,644.9	26.8	54.6	49.6	9.4	90.6	100.0
Thailand	1,256.8	11,743.0	12,999.8	5.9	11.7	10.6	9.7	90.3	100.0
Vietnam	2,078.6	6,821.4	8,900.0	9.7	6.8	7.3	23.4	76.6	100.0
ASEAN	21,321.5	100,628.3	122,376.5	100.0	100.0	100.0	17.4	82.2	100.0
ASEAN6	17,757.3	91,396.8	109,154.1	83.3	90.8	89.2	16.3	83.7	100.0
CMLV	3,564.2	9,231.6	13,222.5	16.7	9.2	10.8	27.0	69.8	100.0

Source: ASEAN Statistics, ASEAN Secretariat

Table 9. Top ten sources of FDI inflows in ASEAN, 2011-2013 (value in US\$ mn., share to total in percent)

Country/region	Value				Share to total inflows			
	2011	2012	2013	2011-2013	2011	2012	2013	2011-2013
EU	29,693.3	18,084.9	26,979.6	74,757.8	30.4	15.8	22.0	22.4
ASEAN	15,228.4	20,657.6	21,321.5	57,207.6	15.6	18.1	17.4	17.1
Japan	9,709.0	23,777.1	22,904.4	56,390.5	10.0	20.8	18.7	16.9
USA	9,129.8	11,079.5	3,757.5	23,966.9	9.4	9.7	3.1	7.2
China	7,857.7	5,376.8	8,643.5	21,878.0	8.1	4.7	7.1	6.5
Hong Kong	4,273.8	5,029.9	4,517.3	13,821.0	4.4	4.4	3.7	4.1
Korea	1,742.1	1,708.4	3,516.2	6,966.7	1.8	1.5	2.9	2.1
Taiwan	2,317.0	2,242.3	1,321.7	5,880.9	2.4	2.0	1.1	1.8
Australia	1,530.2	1,831.0	2,002.3	5,363.5	1.6	1.6	1.6	1.6
India	(2,230.5)	2,233.4	1,317.5	1,320.4	(2.3)	2.0	1.1	0.4
Top ten sources	79,250.8	92,021.0	96,281.6	267,553.4	81.3	80.5	78.7	80.1
Others	18,287.3	22,263.1	26,095.0	66,645.3	18.7	19.5	21.3	19.9
Total to ASEAN	97,538.1	114,284.0	122,376.5	334,198.7	100.0	100.0	100.0	100.0

Source: ASEAN Statistics, ASEAN Secretariat

Table 10. Significance of SMEs in ASEAN economies, various years

Country	Share of total establishments		Share of total employment		Share of GDP		Share of total exports	
	Share (%)	Year	Share (%)	Year	Share (%)	Year	Share (%)	Year
Brunei Dar.	98.2	2010	58.0	2008	23.0	2008	--	--
Cambodia	99.8	2011	72.9	2011	--	--	--	--
Indonesia	99.9	2011	97.2	2011	58.0	2011	16.4	2011
Lao PDR	*99.9	2006	81.4	2006	--	--	--	--
Malaysia	97.3	2011	57.4	2012	32.7	2012	19.0	2010
Myanmar	**88.8	--	--	--	--	--	--	--
Philippines	99.6	2011	61.0	2011	36.0	2006	10.0	2010
Singapore	99.4	2012	68.0	2012	45.0	2012	--	--
Thailand	99.8	2012	76.7	2011	37.0	2011	29.9	2011
Vietnam	97.5	2011	51.7	2011	--	--	--	--

Source: various Country reports, ERIA, 2013. Note: *Asian Development Bank (2013), **Registered numbers

Table 11. ASEAN member country HDI index 2012

Country	HDI index value		World rank in 2012	Category	Population below poverty line (%)	Gender inequality index		Adult literacy rate (%) 2005-10	Employment to population ratio	Internet users per 100 people	Green-house gas emissions, per capita, tonnes of carbon dioxide equivalent, 2005	Energy supply – renewables (% of total)
	2000	2012				Value	Rank					
Brunei	0.765	0.855	30	Very high	--	n.a.	n.a.	95.2	69.3	50.0	17.9	0.0
Cambodia	0.444	0.543	138	Medium	22.8	0.473	96	77.6	86.7	1.3	1.9	70.8
Indonesia	0.540	0.629	121	Medium	18.1	0.494	106	92.6	70.1	9.9	1.5	34.4
Lao PDR	0.453	0.543	138	Medium	33.9	0.483	100	72.7	85.1	7.0	--	--
Malaysia	0.712	0.769	64	High	--	0.256	42	93.1	66.6	56.3	2.4	5.3
Myanmar	0.382	0.498	149	Low	n.a.	0.437	80	92.3	83.4	--	2.2	72.3
Philippines	0.610	0.654	114	Medium	18.4	0.418	77	95.4	68.8	25.0	0.8	43.0
Singapore	0.826	0.895	18	Very high	--	0.101	18	96.1	69.2	71.1	1.4	0.1
Thailand	0.625	0.690	103	Medium	0.4	0.360	66	93.5	76.9	21.2	1.6	20.5
Vietnam	0.534	0.617	127	Medium	40.1	0.299	48	93.2	81.3	27.9	1.3	42.3

Source: United Nations Human Development Report, 2013



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